

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Frank Choi Examiner #: 76753 Date: 3/8/2003
Art Unit: 1016 Phone Number 303-20067 Serial Number: 101028400
Mail Box and Bldg/Room Location: CM1-2D19 Results Format Preferred (circle): PAPER DISK E-MAIL

2D19 If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Antimicrobial Contact lenses + methods for the
Inventors (please provide full names): production all attached P6-PUB

Earliest Priority Filing Date: 12/21/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Contact lens comprising silver and polymer
comprising monomers of formulas I, II, III, IV

Applicant has elected species of formula I as
I need ~~the same~~ search of formula I
completed first (see paragraph [0268]) for
specific species and [0234] + [0251] for ~~the same~~
subsets of formula I.

POINT OF CONTACT:
PAUL SCHULWITZ
TECHNICAL INFO. SPECIALIST
CM1 6B06 TEL. (703) 305-1954

STAFF USE ONLY

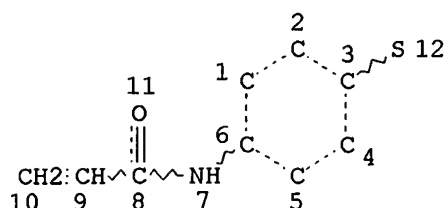
Type of Search

Vendors and cost where applicable

Searcher: _____	NA Sequence (#) _____	STN <u>1070.52</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>4</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>3/18</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>3/19</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>60</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>52</u>	Other _____	Other (specify) _____

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L15 3774 SEA FILE=HCAPLUS ABB=ON PLU=ON ~~CONTACT LENSES+OLD,NT/CT~~
 L29 STR



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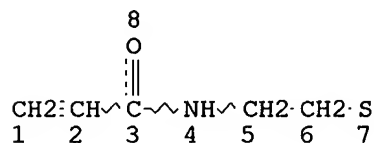
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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 NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L31 26 SEA FILE=REGISTRY SSS FUL L29
 L32 STR



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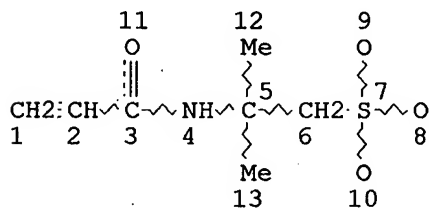
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STEREO ATTRIBUTES: NONE

L34 197 SEA FILE=REGISTRY SSS FUL L32
 L35 STR



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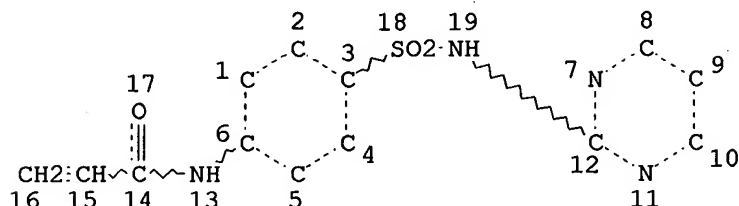
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 CONNECT IS E1 RC AT 9
 CONNECT IS E1 RC AT 10

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L37 4132 SEA FILE=REGISTRY SSS FUL L35
L38 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
RSPEC 7 3
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L40 11 SEA FILE=REGISTRY SSS FUL L38
L42 10 SEA FILE=REGISTRY ABB=ON PLU=ON L31 AND PMS/CI
L43 123 SEA FILE=REGISTRY ABB=ON PLU=ON L34 AND PMS/CI
L44 4026 SEA FILE=REGISTRY ABB=ON PLU=ON L37 AND PMS/CI
L45 6 SEA FILE=REGISTRY ABB=ON PLU=ON L40 AND PMS/CI
L48 11 SEA FILE=HCAPLUS ABB=ON PLU=ON (L42 OR L43 OR L44 OR L45)
AND (L15 OR CONTACT-LENS?)

=> d ibib ab hitstr 1-11 }

L48 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:367168 HCAPLUS

DOCUMENT NUMBER: 136:374914

TITLE: Polymer grafting for enhancement of biofunctional properties of medical and prosthetic surfaces

INVENTOR(S): Goldberg, Eugene P.; Yahiaoui, Ali; Mentak, Khalid; Erickson, Theresa Rivero; Seeger, James

PATENT ASSIGNEE(S): University of Florida, USA

SOURCE: U.S., 29 pp., Cont.-in-part of U.S. 5,376,400.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6387379	B1	20020514	US 1994-202647	19940228

US 4806382	A	19890221	US 1987-37153	19870410
US 4961954	A	19901009	US 1989-304479	19890201
US 5080893	A	19920114	US 1990-555377	19900719
US 5100689	A	19920331	US 1990-592482	19901005
US 5108776	A	19920428	US 1990-592478	19901005
US 5130160	A	19920714	US 1990-592483	19901005
US 5290548	A	19940301	US 1992-859016	19920330
US 5376400	A	19941227	US 1993-3682	19930113
JP 09506665	T2	19970630	JP 1995-518443	19940105
US 5632979	A	19970527	US 1995-412568	19950329

PRIORITY APPLN. INFO.:

US 1987-37153	A2	19870410
US 1989-304479	A2	19890201
US 1990-555377	A2	19900719
US 1990-592478	A2	19901005
US 1990-592482	A2	19901005
US 1990-592483	A2	19901005
US 1992-859016	A2	19920330
US 1993-3682	A2	19930113
US 1988-199687	B1	19880531
US 1990-602144	B1	19901024
US 1991-696960	A3	19910508
US 1992-818125	B1	19920108
US 1993-26125	A3	19930303
WO 1994-US60	W	19940105
US 1994-210454	A3	19940321

AB A method for modifying the surface of a biomaterial adapted for contact with tissue of a human or non-human animal to impart biofunctional, bioactive or biomimetic properties to the surface comprising: (a) exposing the surface to a soln. comprising (1) an ethylenically unsatd. monomer or mixt. thereof capable, via the ethylenic unsatn., of gamma irradiation or electron beam induced polymerization, and (2) at least one biofunctional agent; and (b) irradiating the surface with gamma or electron beam irradiation in the presence of the soln. to thereby form on the surface a graft polymer coating, the coating having phys. entrapped therein or chem. bonded thereto mols. of the at least one biofunctional agent which imparts biofunctional or biomimetic properties to the surface. The gamma or electron beam irradiation induced polymerization is conducted under one of the following conditions: (A) (i) monomer concn. in the soln. in the range of about 0.1-50%, by wt.; (ii) total gamma or electron beam dose in the range of about 0.001-0.50 Mrad; and (iii) gamma dose rate in the range of about 10-2500 rad/min., or electron beam dose rate in the range of about 10-108 rad/min. (B) (i) hydrophilic monomer(s) graft under conditions which may include monomer pre-soak or plasma gamma surface modification (esp. for metal or glass substrates in latter case); and (ii) graft polymerization of monomer(s) with bioactive/biofunctional mols. using (i) as substrate. (C) (i) Hydrograft as in A or B above followed by dehydration and adsorption of bioactive/biofunctional mols. into the hydrophilic polymer graft, wherein the biol. properties of the biofunctional agent are substantially maintained. For example, silicone envelopes of mammary implants were modified by the two-step process (with NVP presoak) and radiation surface graft modified with dimethylacrylamide (DMA) and with K sulfopropyl acrylate (KSPA) graft matrixes containing a heparin-mannitol-prednisone mix (3% total in the ratio 1:3:1) with 10% of the hydrophilic monomer. The presoak graft condition was 0.1 Mrad and the biofunctional mix/monomer graft was at 0.05 Mrad. The resulting silicone surface was improved in many ways: (a) exhibits less tissue adhesion and trauma during surgical implantation, (b) is less adherent for inflammatory cells to reduce

postoperative inflammation, (c) is less adherent for pathogens to inhibit infectious complications, (d) is less permeable to silicone fluids contained within the silicone gel in the implants due to the surface hydrophilicity, and most important (e) exhibits minimal hard fibrous capsule formation which normally surrounds such implants due to surface inflammatory and foreign body reactions. Concerning this latter point, a major problem with such devices, the biofunctional graft acts to inhibit inflammatory reactions due to the localized corticosteroid activity of the prednisone, the antioxidant/anti-inflammatory function of the mannitol, and the fibroblast/smooth muscle cell inhibition and blotting cascade inhibition function of the heparin. Rabbit implants using miniature (2-4 g) silicone/silicone gel implants examd. at periods of 2 wk to 6 mo confirm the more favorable behavior (reduced incidence of thick contractile capsule) as compared with unmodified or simply Hydrograft-modified implants.

IT 106826-74-8P 423765-27-9P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polymer grafting for enhancement of biofunctional properties of medical and prosthetic surfaces)

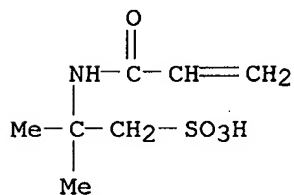
RN 106826-74-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

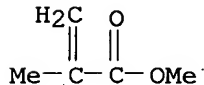
CMF C7 H13 N O4 S



CM 2

CRN 80-62-6

CMF C5 H8 O2



RN 423765-27-9 HCAPLUS

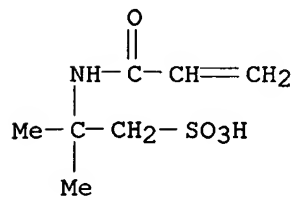
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1-ethenyl-2-pyrrolidinone, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and sodium 2-methyl-2-propenoate, graft (9CI) (CA

INDEX NAME)

CM 1

CRN 15214-89-8

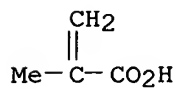
CMF C7 H13 N O4 S



CM 2

CRN 5536-61-8

CMF C4 H6 O2 . Na

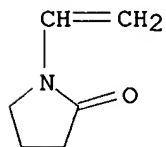


● Na

CM 3

CRN 88-12-0

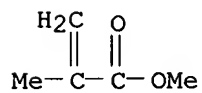
CMF C6 H9 N O

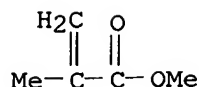


CM 4

CRN 80-62-6

CMF C5 H8 O2





REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L48 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:347320 HCAPLUS

DOCUMENT NUMBER: 136:345883

TITLE: Aqueous solutions containing hexamethylenebiguanide derivatives and anionic polymers for disinfection, preservation, and rinsing of **contact lenses**

INVENTOR(S): Nagao, Masahiro; Akamatsu, Narumi; Ohara, Tomoko

PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

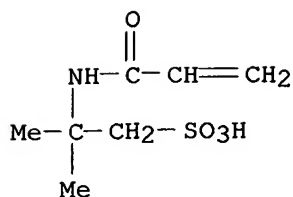
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002128615	A2	20020509	JP 2000-320813	20001020
PRIORITY APPLN. INFO.:			JP 2000-320813	20001020
AB Title solns. contain 5-500 ppm X[(CH ₂) ₃ NHC(:NH)NHC(:NH)NH(CH ₂) ₃]nY [X, Y = (CH ₂) ₃ NH ₂ , (CH ₂) ₃ NHC(:NH)NHCN; n = 1-500] and water-sol. polymers having .ltoreq.2 .times. 10 ⁻³ equiv/g anionic groups at an equiv ratio of (the cationic groups of the hexamethylenebiguanide derivs.)/(the anionic groups of the anionic polymers) .ltoreq.500. Thus, an aq. soln. contg. 5 ppm poly(hexamethylenebiguanide) HCl salt and 0.1% sapond. vinyl acetate-maleic acid copolymer showed strong antibacterial activity and weak cytotoxicity.				
IT 79020-07-8D , Sodium 2-acrylamido-2-methylpropanesulfonate-vinyl acetate copolymer, sapond.				
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BUU (Biological use, unclassified); POF (Polymer in formulation); BIOL (Biological study); USES (Uses)				
(aq. solns. contg. hexamethylenebiguanide derivs. and anionic polymers for disinfection, preservation, and rinsing of contact lenses)				
RN	79020-07-8 HCAPLUS			
CN	Acetic acid ethenyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)			
CM	1			
CRN	5165-97-9			
CMF	C7 H13 N O4 S . Na			



● Na

CM 2

CRN 108-05-4
CMF C4 H6 O2

AcO-CH=CH₂

L48 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:246885 HCAPLUS

DOCUMENT NUMBER: 130:301725

TITLE: Molded polymer article having a hydrophilic surface for **contact lenses**

INVENTOR(S): Yasuda, Tokugen; Inoue, Hitoshi; Kitajima, Satsuki; Sato, Masahiro; Yang, Wu; Omura, Ikuo

PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 908476	A2	19990414	EP 1998-119056	19981008
EP 908476	A3	20000426		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11172149	A2	19990629	JP 1998-228534	19980730
US 6310116	B1	20011030	US 1998-157100	19980918
CA 2248467	AA	19990409	CA 1998-2248467	19980928
TW 482721	B	20020401	TW 1998-87116261	19980930
CN 1096352	B	20021218	CN 1998-120911	19981009
PRIORITY APPLN. INFO.:			JP 1997-293299	A 19971009

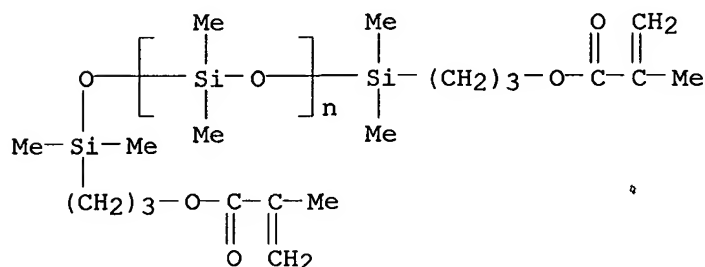
AB A molded polymer article comprises a molded body having on the surface a hydrophilic polymer layer, the article being obtained by polymg. both a monomer having a hydrophilic group and coated on the surface of a hydrophilic mold, and a polymerizable compn. consisting essentially of a monomer and/or oligomer and placed in the mold. The hydrophilic polymer layer has excellent adhesiveness to the main body of the molded polymer

IT 223389-47-7P

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(prepn. of molded polymer articles having hydrophilic surfaces for  
contact lenses)
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CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-.omega.-[[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]oxy]poly[oxy(dimethylsilylene)] (9CI) (CA INDEX NAME)

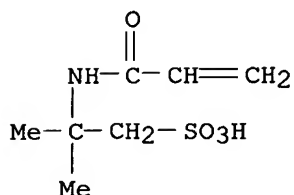
CCI PMS



CM 2

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

L48 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:184295 HCAPLUS

DOCUMENT NUMBER: 130:227785

TITLE: Preparation of biomimetic polymer hydrogel materials for **contact lenses**

INVENTOR(S): Bertozzi, Carolyn; Mukkamala, Ravindranath; Chen, Qing; Hu, Hopin; Baude, Dominique

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911692	A1	19990311	WO 1998-US18257	19980902
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9892169	A1	19990322	AU 1998-92169	19980902
EP 1017737	A1	20000712	EP 1998-944692	19980902
R: CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
US 6107365	A	20000822	US 1998-145507	19980902
JP 2001515924	T2	20010925	JP 2000-508721	19980902
NO 2000001071	A	20000503	NO 2000-1071	20000302
PRIORITY APPLN. INFO.:			US 1997-57444P	P 19970903
			WO 1998-US18257	W 19980902

AB Novel biomimetic polymer hydrogel materials and methods for their prepn are described. Hydrogels contg. acrylamide-functionalized carbohydrate,

sulfoxide, sulfide or sulfone copolymer with a hydrophilic or hydrophobic copolymer. material selected from the group consisting of an acrylamide, methacrylamide, acrylate, methacrylate, vinyl and a deriv. at 1-99 wt.% are outlined for the fabrication of soft **contact lenses** and biomedical implants. Copolymer hydrogels were prepared by the reaction of N-acryloyl-N-[4-(3,6,9-trioxadecyloxybenzyl)-D-glucamine, 2-HEMA and EGDMA. The protein adsorption of these copolymers was determined.

IT 221189-10-2P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of biomimetic polymer hydrogel materials for **contact lenses**)

RN 221189-10-2 HCAPLUS

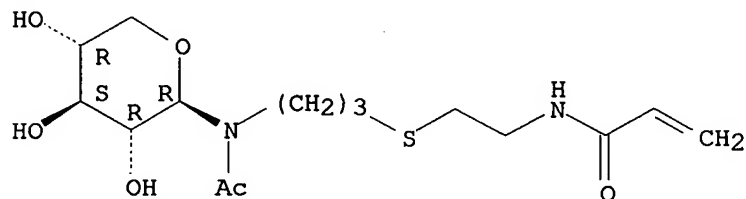
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with N-[2-[[3-(acetyl-.beta.-D-xylopyranosylamino)propyl]thio]ethyl]-2-propenamide and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 221189-04-4

CMF C15 H26 N2 O6 S

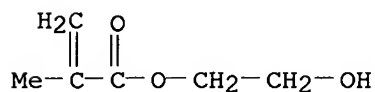
Absolute stereochemistry.



CM 2

CRN 868-77-9

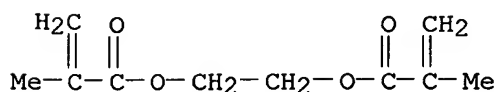
CMF C6 H10 O3



CM 3

CRN 97-90-5

CMF C10 H14 O4



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L48 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:476862 HCAPLUS

DOCUMENT NUMBER: 125:123810

TITLE: Durable hydrophilic surface coatings for biomedical devices

INVENTOR(S): Sheu, Min-Shyan; Loh, Ih-Houng

PATENT ASSIGNEE(S): Advanced Surface Technology, Inc., USA

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

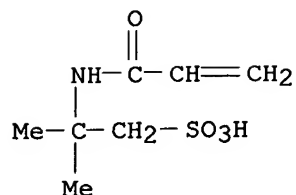
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9618498	A1	19960620	WO 1995-US16539	19951214
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5837377	A	19981117	US 1995-560023	19951117
EP 871566	A1	19981021	EP 1995-943143	19951214
R: DE, ES, FR, GB, IT				
PRIORITY APPLN. INFO.:			US 1994-357415	19941216
			WO 1995-US16539	19951214
AB	A hydrophylic article for use in aq. environments, comprises a substrate, an ionic polymeric layer on the substrate, and a disordered polyelectrolyte coating ionically bonded to the polymeric layer. Porous polyethylene sheets were treated with O2 plasma for 30 min at 250 W and 60 mtorr. The treated polyethylene was placed into a 3 % aq. soln. of polyethyleneimine (PEI) under vacuum for 5 mins. The sample was then soaked in the PEI soln. for 20 mins and removed for drying in air. The coated surface exhibited complete wettability while the untreated sample showed a high water contact angle of 109.degree.. Complete and rapid absorption of the water droplet into the coated material was obsd.			
IT	27119-07-9			
	RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			
	(durable hydrophilic surface coatings for biomedical devices)			
RN	27119-07-9 HCAPLUS			
CN	1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, homopolymer (9CI) (CA INDEX NAME)			
CM	1			
CRN	15214-89-8			
CMF	C7 H13 N O4 S			



L48 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:304420 HCAPLUS

DOCUMENT NUMBER: 125:21856

TITLE: Electrically controllable ionic polymeric gels as adaptive optical lenses

AUTHOR(S): Salehpoor, Karim; Shahinpoor, Mohsen; Mojarad, Mehran
CORPORATE SOURCE: School of Engineering, University of New Mexico, Albuquerque, NM, 87131, USASOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1996), 2716(Smart Materials Technologies and Biomimetics), 36-45
CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Reversible change in optical properties of ionic polymeric gels, 2-acrylamido-2-methylpropane sulfonic acid (PAMPS) and polyacrylic acid plus Na acrylate cross-linked with bisacrylamide (PAAM), under the effect of an elec. field is reported. The shape of a cylindrical piece of the gel, with flat top and bottom surfaces, changed when affected by an elec. field. The top surface became curved and the sense of the curvature (whether concave or convex) depended on the polarity of the applied elec. field. The curvature of the surface changed from concave to convex and vice versa by changing the polarity of the elec. field. Using an optical app., focusing capability of the curved surface was verified and the focal length of the deformed gel was measured. The effect of the intensity of the applied elec. field on the surface curvature and thus, on the focal length of the gel are tested. Different mechanisms are discussed; either of them or their combination may explain the surface deformation and curvature. Practical difficulties in the test procedure and the future potential of the elec. adaptive and active optical lenses are also discussed. These adaptive lenses may be considered as smart adaptive lenses for **contact lens** or other optical applications requiring focal point undulation.

IT 27119-07-9, (Poly2-acrylamido-2-methylpropane sulfonic acid)

RL: DEV (Device component use); PRP (Properties); USES (Uses)

(elec. controllable ionic polymeric gels as adaptive optical lenses)

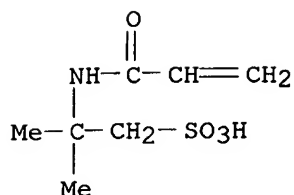
RN 27119-07-9 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

CMF C7 H13 N O4 S



L48 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:491904 HCAPLUS

DOCUMENT NUMBER: 121:91904

TITLE: Surface-modified ocular implants, surgical instruments, devices, prostheses, **contact lenses** and the like

INVENTOR(S): Goldberg, Eugene P.; Yahiaoui, Ali; Mentak, Khalid

PATENT ASSIGNEE(S): University of Florida, USA

SOURCE: U.S., 20 pp. Cont. of U.S. Ser. No. 5,080,893.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5290548	A	19940301	US 1992-859016	19920330
US 4806382	A	19890221	US 1987-37153	19870410
US 4961954	A	19901009	US 1989-304479	19890201
US 5080893	A	19920114	US 1990-555377	19900719
US 5100689	A	19920331	US 1990-592482	19901005
US 5108776	A	19920428	US 1990-592478	19901005
US 5130160	A	19920714	US 1990-592483	19901005
JP 09506665	T2	19970630	JP 1995-518443	19940105
US 6387379	B1	20020514	US 1994-202647	19940228
US 5632979	A	19970527	US 1995-412568	19950329

PRIORITY APPLN. INFO.:

US 1987-37153	A2	19870410
US 1989-304479	A2	19890201
US 1990-555377	A2	19900719
US 1990-592478	A2	19901005
US 1990-592482	A2	19901005
US 1990-592483	A2	19901005
US 1988-199687	B1	19880531
US 1991-696960	A3	19910508
US 1992-818125	B1	19920108
US 1992-859016	A2	19920330
US 1993-3682	A2	19930113
US 1993-26125	A3	19930303
WO 1994-US60	W	19940105
US 1994-210454	A3	19940321

AB A plastic surface of an article adapted for contacting living tissue is modified by .gamma. or electron beam irradiation-induced chemical graft polymerization of (1) a neutral or ionic water-soluble, hydrophilic vinyl monomer or salt thereof, (2) a mixture of two or more of the monomers, or (3) a member selected from the group consisting of N-vinylpyrrolidone, 2-hydroxyethyl methacrylate, and mixtures thereof, to form a hydrophilic graft polymer.

coating on the surface. Poly(Me methacrylate) substrates were presoaked in a 10% methacrylic acid soln. and exposed to .gamma.-radiation for graft polymn. Surface characterization of the samples were carried out using contact angle measurements to show improved hydrophilicity.

IT 154861-65-1P

RL: PREP (Preparation)

(prepn. of, for prosthetic implants with biocompatible surface)

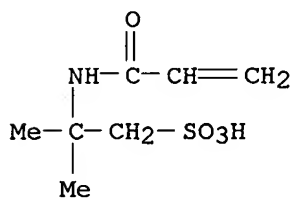
RN 154861-65-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium
salt, graft (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

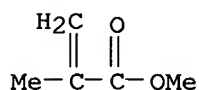


● Na

CM 2

CRN 80-62-6

CMF C5 H8 O2



L48 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1990:578315 HCAPLUS

DOCUMENT NUMBER: 113:178315

TITLE: Fluorinated dimethylacrylamide copolymer hydrogels
with high oxygen permeability for **contact**
lenses

INVENTOR(S): Mueller, Karl F.

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 351364	A2	19900117	EP 1989-810499	19890630
EP 351364	A3	19910515		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4954587	A	19900904	US 1989-356801	19890523
AU 8937169	A1	19900111	AU 1989-37169	19890628
AU 618817	B2	19920109		
CA 1338363	A1	19960528	CA 1989-604473	19890630
DK 8903316	A	19900106	DK 1989-3316	19890704
JP 02070713	A2	19900309	JP 1989-172077	19890705
JP 2984002	B2	19991129		
US 5011275	A	19910430	US 1990-549528	19900706
PRIORITY APPLN. INFO.:			US 1988-215101	19880705
			US 1989-356801	19890523

AB Polymers are obtained by copolymerization of 15-85 wt% N,N-dimethylacrylamide with approximately 15-85% of a fluorinated monomer such as perfluoroalkylalkylene acrylate or -methacrylate, with 3-25 F and, optionally, 0-50 %, and <5 mol% of a polyvinyl functional crosslinking agent. These polymers are machinable in the dry state and form clear hydrogels with 25-75 % water content and possess O-permeabilities 3-7 times higher than conventional hydrogels of similar water content. In the absence of crosslinking, the novel polymers are plasticized by water, forming clear hydroplastics with 30-70 % water content. The crosslinked polymers are especially useful for fabricating **contact lenses** for extended wear by either cutting and polishing a xerogel button, or by spin casting or direct molding in bulk or in solution. A mixture of 5 g N,N-dimethylacrylamide, 4.95 g heptafluorobutyl methacrylate, and 0.05 g ethylene glycol dimethacrylate was copolymerized by UV irradiation, in the presence of 0.02 g benzoin Me ether, in button molds. After equilibration with water, the polymer had an O permeability (O2DK) of 30 barrers and a water content of 58%. The polymer may also be used as bandages and in drug-delivery devices.

IT 129827-09-4 129827-10-7

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**contact lens** material)

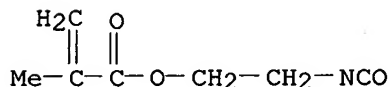
RN 129827-09-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,4-heptafluorobutyl ester, polymer with N,N-dimethyl-2-propenamide, 2-isocyanatoethyl 2-methyl-2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

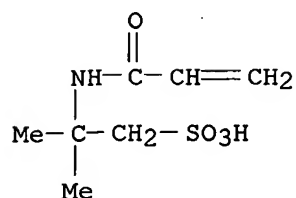
CRN 30674-80-7

CMF C7 H9 N O3



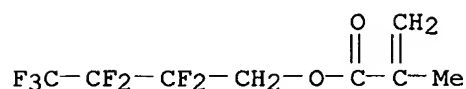
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



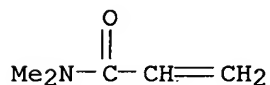
CM 3

CRN 13695-31-3
CMF C8 H7 F7 O2



CM 4

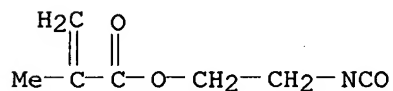
CRN 2680-03-7
CMF C5 H9 N O



RN 129827-10-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with
N,N-dimethyl-2-propenamides, 2,2,3,3,4,4,4-heptafluorobutyl
2-methyl-2-propenoate, 2-isocyanatoethyl 2-methyl-2-propenoate and
2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA
INDEX NAME)

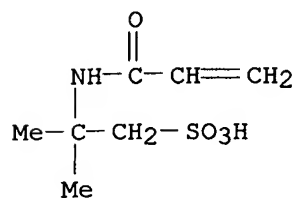
CM 1

CRN 30674-80-7
CMF C7 H9 N O3



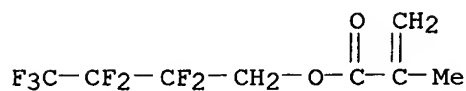
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



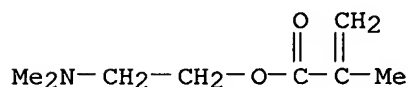
CM 3

CRN 13695-31-3
CMF C8 H7 F7 O2



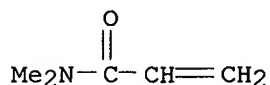
CM 4

CRN 2867-47-2
CMF C8 H15 N O2



CM 5

CRN 2680-03-7
CMF C5 H9 N O



L48 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1979:88293 HCAPLUS

DOCUMENT NUMBER: 90:88293

TITLE: HEMA Copolymers having high oxygen permeability

INVENTOR(S): Rostoker, Martin V.; Levine, Leon

PATENT ASSIGNEE(S): National Patent Development Corp., USA

SOURCE: Can., 28 pp.
 CODEN: CAXXA4
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 1034698	A1	19780711	CA 1975-217382	19750106
BR 7500088	A	19760810	BR 1975-108	19730106
US 4038264	A	19770726	US 1974-526079	19741122
AU 7477033	A1	19760701	AU 1974-77033	19741231
FR 2256931	A1	19750801	FR 1975-234	19750106
FR 2256931	B1	19800321		
DK 7500023	A	19750825	DK 1975-23	19750106
IL 46396	A1	19780131	IL 1975-46396	19750106
BE 824162	A1	19750502	BE 1975-152194	19750107
SE 7500117	A	19750708	SE 1975-117	19750107
NL 7500170	A	19750709	NL 1975-170	19750107
JP 50107946	A2	19750825	JP 1975-4620	19750107
JP 58045688	B4	19831012		
ZA 7500126	A	19760128	ZA 1975-126	19750107
AT 7500065	A	19760215	AT 1975-65	19750107
AT 333033	B	19761025		
ES 433612	A1	19770216	ES 1975-433612	19750107
GB 1496062	A	19771221	GB 1975-580	19750107
IT 1026248	A	19780920	IT 1975-47545	19750107
AT 7506487	A	19770715	AT 1975-6487	19750821
DK 7505784	A	19751218	DK 1975-5784	19751218

PRIORITY APPLN. INFO.:

US 1974-431555 19740107
 US 1974-526079 19741122
 DK 1975-23 19750106
 AT 1975-65 19750107

AB Hydrophilic, water-insol. hydroxyethyl methacrylate [HEMA] copolymers having high O permeabilities were prep'd. and used as **contact lenses**. Thus, a lens material comprising 75:25 hydroxyethyl methacrylate-methoxytriethylene glycol methacrylate copolymer [57514-83-7] crosslinked by 0.3% ethylene dimethacrylate [97-90-5] had O permeability 16.01 cm³-cm(STP)/cm²-cm Hg-s (Tme 1010), water uptake 59.8%, elastic modulus 195.13 psi, ultimate elongation 31.36%, and ultimate load 75.53 psi.

IT **67752-99-2**

RL: USES (Uses)

(**contact lens** material, having high oxygen permeability)

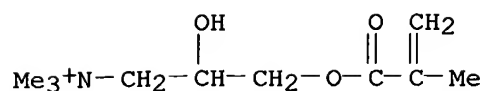
RN 67752-99-2 HCAPLUS

CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 13052-11-4

CMF C10 H20 N O3 . Cl

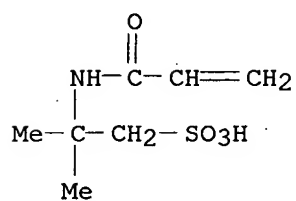


● Cl⁻

CM 2

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

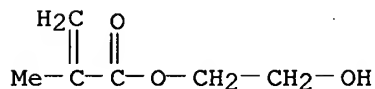


● Na

CM 3

CRN 868-77-9

CMF C6 H10 O3



L48 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1976:91000 HCAPLUS
 DOCUMENT NUMBER: 84:91000
 TITLE: Hydrophilic acrylamido polymers
 INVENTOR(S): Laskey, Richard A.
 PATENT ASSIGNEE(S): Datascope Corp., USA
 SOURCE: U.S., 6 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 3929741	A	19751230	US 1974-488933	19740716
JP 51019090	A2	19760216	JP 1975-78555	19750624
GB 1494803	A	19771214	GB 1975-27501	19750630
DE 2531828	A1	19760205	DE 1975-2531828	19750716

PRIORITY APPLN. INFO.:

US 1974-488933 19740716

AB Polymers suitable for hydrogel **contact lenses** are prepd. from 2-acrylamido-2-methylpropanesulfonic acid (I). Thus, a mixt. of I 5, 2% aq. ammonium persulfate 4, and ethylene dimethacrylate 0.014 g was kept 20 min at 55-60.degree. to give a polymer [58374-76-8]. The hard, rigid, clear, colorless dried polymer gained 15,000% its wt. in water or 3,000% its wt. in an isotonic soln. to provide a soft, optical clear, and colorless hydrated product.

IT 51121-86-9 58374-67-7 58374-68-8
 58374-70-2 58374-71-3 58374-72-4
 58374-73-5 58374-74-6 58374-75-7
 58374-76-8 58374-78-0 58374-79-1
 58421-47-9

RL: USES (Uses)
 (hydrogels)

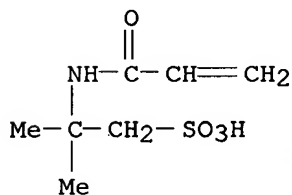
RN 51121-86-9 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

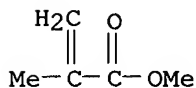
CMF C7 H13 N O4 S



CM 2

CRN 80-62-6

CMF C5 H8 O2

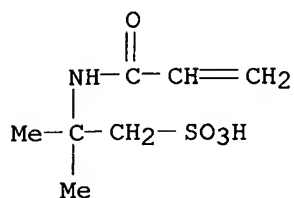


RN 58374-67-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1,2-ethanediyl bis(2-methyl-2-propenoate) and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

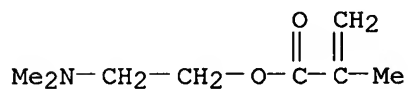
CM 1

CRN 15214-89-8
CMF C7 H13 N O4 S



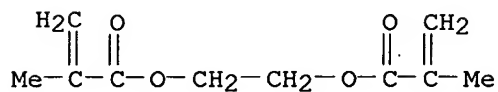
CM 2

CRN 2867-47-2
CMF C8 H15 N O2



CM 3

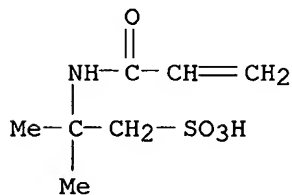
CRN 97-90-5
CMF C10 H14 O4



RN 58374-68-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-hydroxyethyl 2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

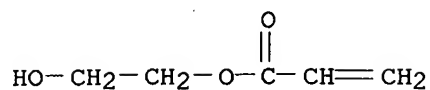
CRN 15214-89-8
CMF C7 H13 N O4 S



CM 2

CRN 818-61-1

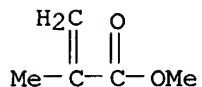
CMF C5 H8 O3



CM 3

CRN 80-62-6

CMF C5 H8 O2



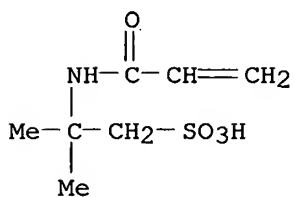
RN 58374-70-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monoammonium
salt (9CI) (CA INDEX NAME)

CM 1

CRN 58374-69-9

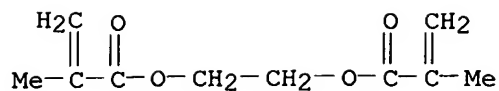
CMF C7 H13 N O4 S . H3 N

● NH₃

CM 2

CRN 97-90-5

CMF C10 H14 O4



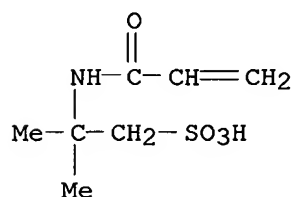
RN 58374-71-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium
salt (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

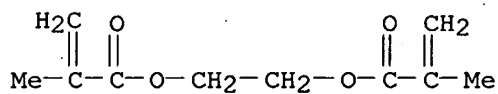


● Na

CM 2

CRN 97-90-5

CMF C10 H14 O4



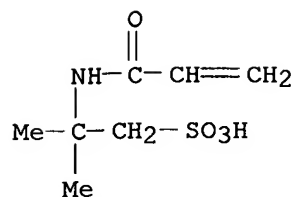
RN 58374-72-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
1-ethenyl-2-pyrrolidinone and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-
propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

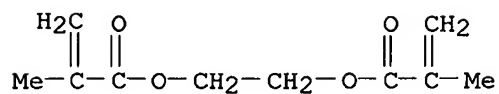
CMF C7 H13 N O4 S



CM 2

CRN 97-90-5

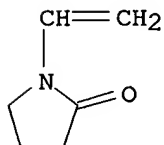
CMF C10 H14 O4



CM 3

CRN 88-12-0

CMF C6 H9 N O



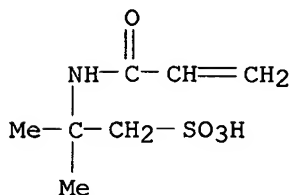
RN 58374-73-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and
 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

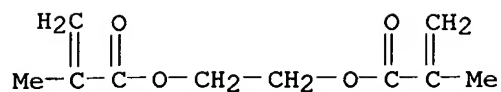
CRN 15214-89-8

CMF C7 H13 N O4 S



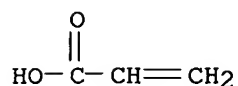
CM 2

CRN 97-90-5
CMF C10 H14 O4



CM 3

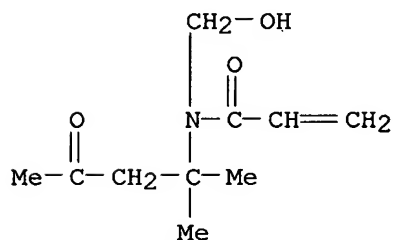
CRN 79-10-7
CMF C3 H4 O2



RN 58374-74-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
N-(1,1-dimethyl-3-oxobutyl)-N-(hydroxymethyl)-2-propenamide and
2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA
INDEX NAME)

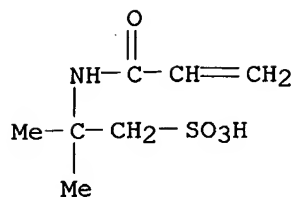
CM 1

CRN 42772-51-0
CMF C10 H17 N O3



CM 2

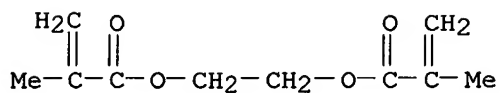
CRN 15214-89-8
CMF C7 H13 N O4 S



CM 3

CRN 97-90-5

CMF C10 H14 O4



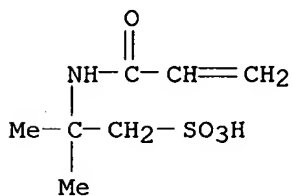
RN 58374-75-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
 N-(1,1-dimethyl-3-oxobutyl)-2-propenamide and 2-methyl-2-[(1-oxo-2-
 propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

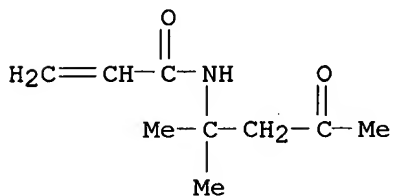
CMF C7 H13 N O4 S



CM 2

CRN 2873-97-4

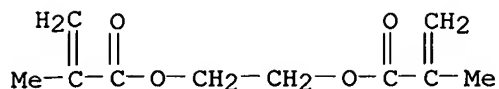
CMF C9 H15 N O2



CM 3

CRN 97-90-5

CMF C10 H14 O4



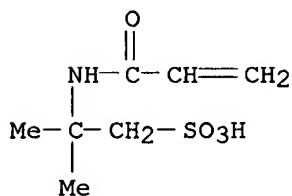
RN 58374-76-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA
INDEX NAME)

CM 1

CRN 15214-89-8

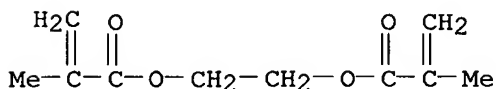
CMF C7 H13 N O4 S



CM 2

CRN 97-90-5

CMF C10 H14 O4



RN 58374-78-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, sodium salt
(9CI) (CA INDEX NAME)

CM 1

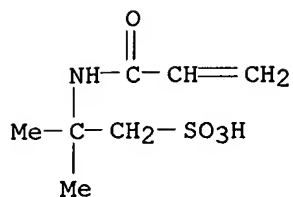
CRN 58374-76-8

CMF (C10 H14 O4 . C7 H13 N O4 S)x

CCI PMS

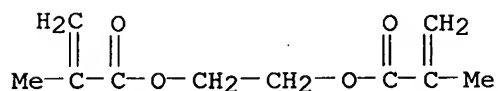
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 3

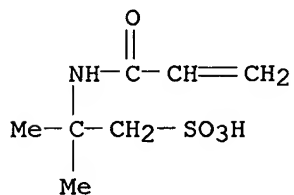
CRN 97-90-5
CMF C10 H14 O4



RN 58374-79-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
2-hydroxyethyl 2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-
propanesulfonic acid (9CI) (CA INDEX NAME)

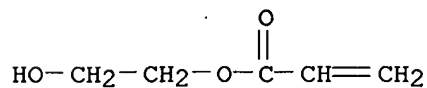
CM 1

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 2

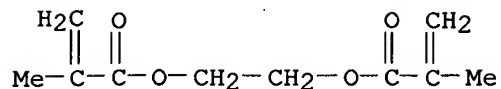
CRN 818-61-1
CMF C5 H8 O3



CM 3

CRN 97-90-5

CMF C10 H14 O4



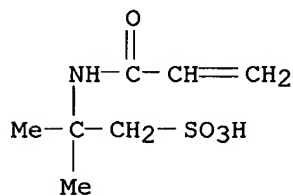
RN 58421-47-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
2-hydroxyethyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-
propanesulfonic acid and 1,2-propanediol mono-2-propenoate (9CI) (CA
INDEX NAME)

CM 1

CRN 15214-89-8

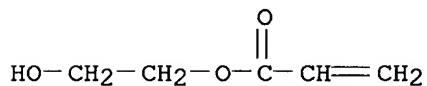
CMF C7 H13 N O4 S



CM 2

CRN 818-61-1

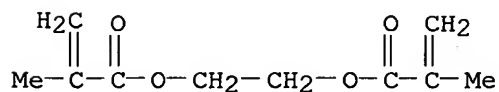
CMF C5 H8 O3



CM 3

CRN 97-90-5

CMF C10 H14 O4



CM 4

CRN 25584-83-2

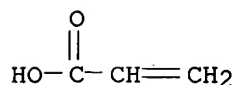
CMF C6 H10 O3

CCI IDS

CM 5

CRN 79-10-7

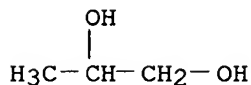
CMF C3 H4 O2



CM 6

CRN 57-55-6

CMF C3 H8 O2



L48 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1976:22116 HCAPLUS

DOCUMENT NUMBER: 84:22116

TITLE: Hydrophilic, water-insoluble mixed polymers

INVENTOR(S): Rostoke, Martin V.; Levine, Leon

PATENT ASSIGNEE(S): National Patent Development Corp., USA

SOURCE: Ger. Offen., 27 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2500403	A1	19750717	DE 1975-2500403	19750107
BR 7500088	A	19760810	BR 1975-108	19730106
US 4038264	A	19770726	US 1974-526079	19741122
AU 7477033	A1	19760701	AU 1974-77033	19741231
FR 2256931	A1	19750801	FR 1975-234	19750106
FR 2256931	B1	19800321		
DK 7500023	A	19750825	DK 1975-23	19750106
IL 46396	A1	19780131	IL 1975-46396	19750106
BE 824162	A1	19750502	BE 1975-152194	19750107
SE 7500117	A	19750708	SE 1975-117	19750107
NL 7500170	A	19750709	NL 1975-170	19750107

JP 50107946	A2	19750825	JP 1975-4620	19750107
JP 58045688	B4	19831012		
ZA 7500126	A	19760128	ZA 1975-126	19750107
AT 7500065	A	19760215	AT 1975-65	19750107
AT 333033	B	19761025		
ES 433612	A1	19770216	ES 1975-433612	19750107
GB 1496062	A	19771221	GB 1975-580	19750107
IT 1026248	A	19780920	IT 1975-47545	19750107
AT 7506487	A	19770715	AT 1975-6487	19750821
DK 7505784	A	19751218	DK 1975-5784	19751218
PRIORITY APPLN. INFO.:			US 1974-431555	19740107
			US 1974-526079	19741122
			DK 1975-23	19750106
			AT 1975-65	19750107

AB Crosslinked copolymers of hydroxyalkyl acrylates or methacrylates and their ethers were highly hydrophilic and permeable to oxygen [7782-44-7], and were suitable for **contact lenses** which could be worn continuously for weeks or months. For example, a hydroxyethyl methacrylate-methoxytriethylene glycol methacrylate copolymer [57514-83-7] was prep'd. by mixing the monomers in e.g. 75:25 proportion, adding 0.3% ethylene glycol dimethacrylate as crosslinking agent, removing O, adding 0.3% isopropyl peroxide dicarbonate as catalyst, and polymg. in Al molds at 120.degree. for 1.5 hr.

IT **57514-86-0**

RL: DEV (Device component use); USES (Uses)
(for **contact lenses**, hydrophilicity and oxygen permeability of)

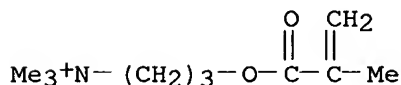
RN 57514-86-0 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 55918-38-2

CMF C10 H20 N O2 . C1

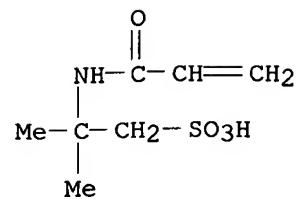


● Cl⁻

CM 2

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

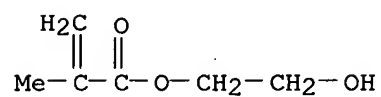


● Na

CM 3

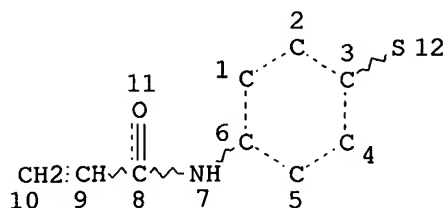
CRN 868-77-9

CMF C6 H10 O3



=> d que

L16 178775 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIMICROBIAL AGENTS+NT/CT
 L29 STR



NODE ATTRIBUTES:

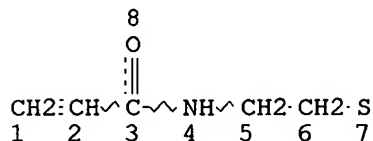
CONNECT IS X2 RC AT 12
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 1
 NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L31 26 SEA FILE=REGISTRY SSS FUL L29
 L32 STR



NODE ATTRIBUTES:

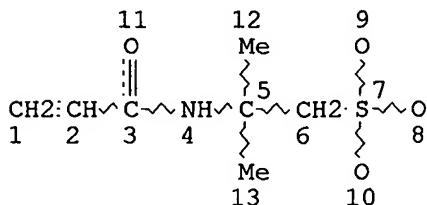
CONNECT IS X2 RC AT 7
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L34 197 SEA FILE=REGISTRY SSS FUL L32
 L35 STR



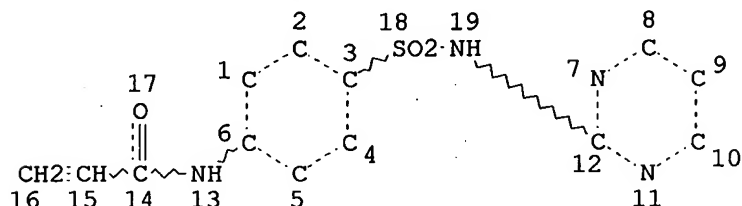
NODE ATTRIBUTES:

CONNECT IS E1 RC AT 8
 CONNECT IS E1 RC AT 9
 CONNECT IS E1 RC AT 10

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L37 4132 SEA FILE=REGISTRY SSS FUL L35
L38 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 7 3
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L40 11 SEA FILE=REGISTRY SSS FUL L38
L42 10 SEA FILE=REGISTRY ABB=ON PLU=ON L31 AND PMS/CI
L43 123 SEA FILE=REGISTRY ABB=ON PLU=ON L34 AND PMS/CI
L44 4026 SEA FILE=REGISTRY ABB=ON PLU=ON L37 AND PMS/CI
L45 6 SEA FILE=REGISTRY ABB=ON PLU=ON L40 AND PMS/CI
L50 14 SEA FILE=HCAPLUS ABB=ON PLU=ON (L42 OR L43 OR L44 OR L45),
AND L16 AND SILVER?

=> d:\file\ab-hatstr-150 1-14

L50 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:926199 HCAPLUS
DOCUMENT NUMBER: 138:138321
TITLE: Genotoxicity study of water-soluble cationic polymers and their polymer-metal complexes with biocidal activity
AUTHOR(S): Rivas, Bernabe L.; Pereira, Eduardo D.; Mondaca, Maria A.; Rivas, Rodrigo J.; Saavedra, Margarita A.
CORPORATE SOURCE: Faculty of Chemistry, University of Concepcion, Concepcion, Chile
SOURCE: Journal of Applied Polymer Science (2003), 87(3), 452-457
CODEN: JAPNAB; ISSN: 0021-8995
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Water-sol. polyelectrolytes contg. ammonium and sulfonic groups, their polymer-Ag(I) complexes, and silver nitrate were investigated as

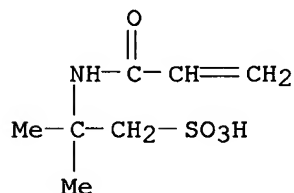
bactericidal compds. for *Staphylococcus aureus* (Collection No. ATCC 28922) and *Escherichia coli* (Collection No. 6538P) according to the National Committee for Clin. Lab. Stds. (NCCL) method. All the compds., except Ag(I), showed bactericidal activity only for *S. aureus*. Ag(I) showed high bactericidal activity for both bacteria. No important effect of the mol. wt. or macromol. size on the max. bactericidal concn. value was obsd. The genotoxicity was studied using the rec assay. None of the macromol. compds. showed genotoxicity, except **silver** ions, whose value was borderline.

IT **27119-07-9**, Poly(2-acrylamido-2-methyl-1-propane sulfonic acid)
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
 (genotoxicity study of water-sol. cationic polymers and their polymer-metal complexes with biocidal activity)
 RN 27119-07-9 HCAPLUS
 CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

CMF C7 H13 N O4 S



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:300511 HCAPLUS

DOCUMENT NUMBER: 134:315855

TITLE: Antimicrobial compositions comprising pyroglutamic acid and metal salts

INVENTOR(S): Biedermann, Kimberly Ann; Kronholm, Kurt Glen; Beerse, Peter William; Morgan, Jeffrey Michael; Mobley, Michael Joseph

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 24

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028552	A2	20010426	WO 2000-US28922	20001019
WO 2001028552	A3	20010614		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,

CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
 MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
 TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 2000014778 A 20020716 BR 2000-14778 20001019

EP 1225887 A2 20020731 EP 2000-970995 20001019

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL

PRIORITY APPLN. INFO.:

US 1999-421131 A 19991019

WO 2000-US28922 W 20001019

AB The present invention relates to antimicrobial compns. which provide enhanced immediate as well as residual anti-viral and antibacterial efficacy. The antimicrobial compns. of the present invention provide previously unseen residual effectiveness against Gram neg. bacteria, Gram pos. bacteria, and viruses, fungi, and improved immediate germ redn. upon use. These compns. comprise: (a) a safe and effective amt. of pyroglutamic acid; (b) a safe and effective amt. of a metal salt; and (c) a dermatol. acceptable carrier for the acid and salt, wherein said compn. has a pH of 1-7. The invention further relates to methods of use for the present compns. as well as antimicrobial products which incorporate the compns. For example, a foaming facial, hand or body wash suitable for washing the skin is prepd. from the following ingredients using conventional mixing techniques: (A) sodium myristoyl sarcosinate 1.35%, disodium lauroamphoacetate 0.35%, sodium trideceth sulfate 0.35%, lauroamphoacetate 1.85%, PEG 120 Me glucose dioleate 2.7%, glycerin 2%; (B) dimethicone copolyol 1.3%, PEG 6 caprylic/capric glycerides 1%, phenoxyisopropanol 0.72%, Polyquaternium-10 0.5%, pyroglutamic acid 2.0%, Cuivridone 0.5%, CuCl₂ 0.1%, disodium EDTA 0.1%, glycol distearate 0.6%, sodium laureth sulfate 0.6%, cocamide MEA 0.12%, Laureth-10 0.12%, PEG 150 pentaerythritol tetrastearate 0.9%, fragrance 0.2%; and (C) water up to 100%, resp.

IT 335383-60-3, Aristoflex AVC

RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antimicrobial compns. comprising pyroglutamic acid and metal salts)

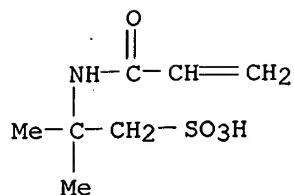
RN 335383-60-3 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monoammonium salt, polymer with N-ethenylformamide and 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 58374-69-9

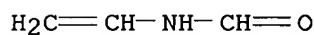
CMF C7 H13 N O4 S . H3 N

● NH₃

CM 2

CRN 13162-05-5

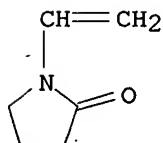
CMF C3 H5 N O



CM 3

CRN 88-12-0

CMF C6 H9 N O



L50 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:707352 HCAPLUS

DOCUMENT NUMBER: 133:282948

TITLE: Acrylic synthetic fibers containing metal silicate or metal aluminosilicate fine powders for nonwoven fibrics

INVENTOR(S): Teranishi, Shuji; Sakata, Ituhiro

PATENT ASSIGNEE(S): Kanebo, Limited, Japan; Kanebo Gohsen, Limited

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000058535	A1	20001005	WO 2000-JP1418	20000308
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,				

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

GB 2363382 A1 20011219 GB 2001-23864 20000308

US 6528162 B1 20030304 US 2002-958071 20020117

PRIORITY APPLN. INFO.:

JP 1999-85596 A 19990329

WO 2000-JP1418 W 20000308

AB The acrylic synthetic fiber contains 0.5-20.0% fine powder comprising a metal silicate or a metal aluminosilicate having apparent sp. gr. .1 to req. 0.5 g/cm³ and av. particle diam. 0.5-10 .mu.m. The fiber has highly deodorizing antibacterial/bacteriostatic and water/perspiration absorption performance. Thus, 90/9/1 acrylonitrile-Me acrylate-sodium 2-acrylamido-2-methylpropanesulfonate copolymer was mixed with 30% DMF dispersion contg. 10% fine powder (SiO₂ 30, Al₂O₃ 10, and ZnO 60%) with apparent sp. gr. 0.21 g/cm³ and av. particle diam. 0.5 .mu.m, and spun to give a fiber showing good deodorizing, antibacterial and water absorption properties.

IT **58803-24-0P**, Acrylonitrile-sodium 2-acrylamido-2-methylpropanesulfonate-vinylidene chloride copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic synthetic fibers contg. metal silicate or metal aluminosilicate fine powders)

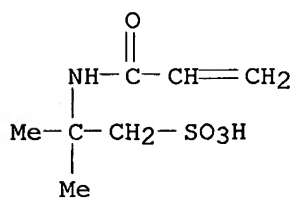
RN 58803-24-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with 1,1-dichloroethene and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

CRN 107-13-1

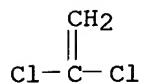
CMF C3 H3 N



CM 3

CRN 75-35-4

CMF C2 H2 Cl2

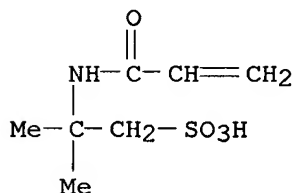


IT **70765-57-0P**, Acrylonitrile-methyl acrylate-sodium
 2-acrylamido-2-methylpropanesulfonate copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (fiber; acrylic synthetic fibers contg. metal silicate or metal
 aluminosilicate fine powders)
 RN 70765-57-0 HCAPLUS
 CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-
 propenyl)amino]-1-propanesulfonic acid monosodium salt and
 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

CRN 107-13-1

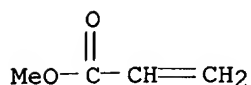
CMF C3 H3 N



CM 3

CRN 96-33-3

CMF C4 H6 O2



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:754274 HCAPLUS

DOCUMENT NUMBER: 128:35499

TITLE: Antibacterial resins containing **silver** sulfonate group and their manufacture

INVENTOR(S): Kawakami, Toshihiro; Teshima, Seiichi; Asako, Yoshinobu; Tsuboi, Hirofumi

PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09301812	A2	19971125	JP 1996-120596	19960515
PRIORITY APPLN. INFO.:			JP 1996-120596	19960515

AB Antibacterial resins, showing high antibacterial effect against *Pseudomonas aeruginosa* and MRSA, are spherical particles having av. particle size 0.3-500 .mu.m and contain SO3Ag. The resins are manufd. by (1) suspension polymn. of arom. vinyl monomers, sulfonation, and reaction with Ag compds. or (2) suspension polymn. of unsatd. sulfonic acid monomers and reaction with Ag compds. Thus, 2.5 mol styrene and 0.31 mol divinylbenzene (contg. 35% ethylstyrene) were polymd., sulfonated, and treated with AgNO3 to give polymer contg. 4.8 mmol Ag/g. The polymer showed complete control of *P. aeruginosa* IFO 3445 in 1 h.

IT **124873-10-5DP, silver** salts
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (antibacterial resins contg. Ag sulfonate groups)

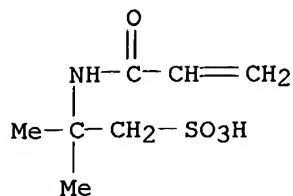
RN 124873-10-5 HCAPLUS

CN 2-Propenoic acid, 2-(dimethylamino)ethyl ester, polymer with N,N'-methylenebis[2-propenamido] and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

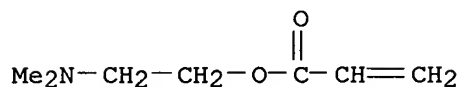
CMF C7 H13 N O4 S



CM 2

CRN 2439-35-2

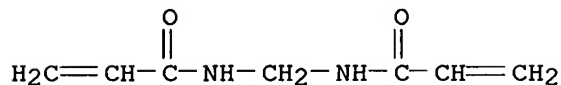
CMF C7 H13 N O2



CM 3

CRN 110-26-9

CMF C7 H10 N2 O2



L50 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:623176 HCAPLUS

DOCUMENT NUMBER: 127:278410

TITLE: Preparation of polyvalent polymers aminodeoxy glycosides as virucides

INVENTOR(S): Mandeville, W. Harry, III; Petersen, John S.; Garigapati, Venkata R.; Neenan, Thomas X.

PATENT ASSIGNEE(S): Geltex Pharmaceuticals, Inc., USA; Mandeville, W. Harry, III; Petersen, John S.; Garigapati, Venkata R.; Neenan, Thomas X.

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9733896	A1	19970918	WO 1997-US3982	19970313

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5891862 A 19990406 US 1996-717265 19960920

AU 9720787 A1 19971001 AU 1997-20787 19970313

AU 714950 B2 20000113

EP 888368 A1 19990107 EP 1997-909036 19970313

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

NZ 331934 A 20000526 NZ 1996-331934 19970313

JP 2002515081 T2 20020521 JP 1997-532843 19970313

PRIORITY APPLN. INFO.: US 1996-616294 A 19960315

US 1996-717265 A 19960920

WO 1997-US3982 W 19970313

OTHER SOURCE(S): MARPAT 127:278410

AB The present invention includes polymerizable monomers comprising a fucoside moiety I (X = spacer group; Y = CH₂, NH, O, S; Z = amidocarboonyl, oxycarbonyl, phenylene, amino, aminomethylene, O; R = H, Me, Et) were prepd. as virucides. In one embodiment, the monomer has a polymerizable functional group, such as an olefinic bond, to which the fucoside moiety is attached by a spacer group, for example, an alkylene group, or an alkylene group wherein one or more carbon atoms are substituted by heteroatoms, such as oxygen, nitrogen or sulfur atoms. The present invention also includes polymers comprising one or more fucoside moieties, such as pendant fucoside moieties, which can inhibit or prevent rotavirus infection in a mammal. The polymer can be a homopolymer or a copolymer, and can have, for example, a polyacrylamide, polyacrylate or polystyrene backbone. In another embodiment, the present invention comprises a method for treating a rotavirus infection in a mammal, for example, a human, by administering to the mammal a therapeutically effective amt. of a polymer comprising one or more glycoside moieties, such as pendant glycoside moieties. The glycoside moieties can be, for example, fucoside moieties or sialic acid moieties. In another embodiment, the polymer to be administered comprises two or more different glycoside-bearing monomers.

IT 196714-29-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of polyvalent polymers aminodeoxy glycosides as virucides)

RN 196714-29-1 HCAPLUS

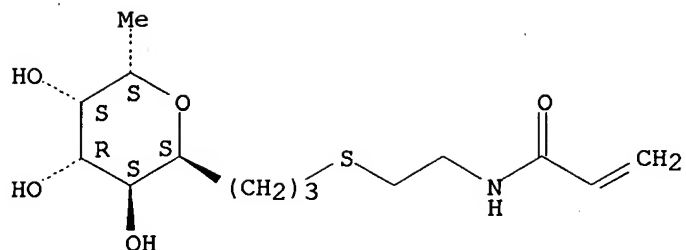
CN L-glycero-D-galacto-Nonitol, 2,6-anhydro-1,7,8-trideoxy-9-S-[2-[(1-oxo-2-propenyl)amino]ethyl]-9-thio-, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 196714-28-0

CMF C14 H25 N O5 S

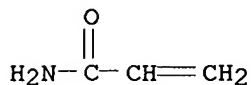
Absolute stereochemistry.



CM 2

CRN 79-06-1

CMF C3 H5 N O



IT 196714-42-8P 196714-43-9P 196807-78-0P

196807-80-4P 196807-85-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of polyvalent polymers aminodeoxy glycosides as virucides)

RN 196714-42-8 HCAPLUS

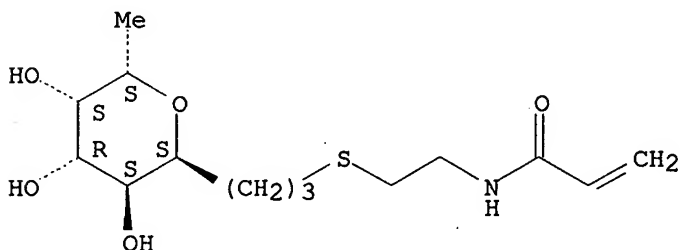
CN L-glycero-D-galacto-Nonitol, 2,6-anhydro-1,7,8-trideoxy-9-S-[2-[(1-oxo-2-propenyl)amino]ethyl]-9-thio-, polymer with N-decyl-2-propenamide (9CI)
(CA INDEX NAME)

CM 1

CRN 196714-28-0

CMF C14 H25 N O5 S

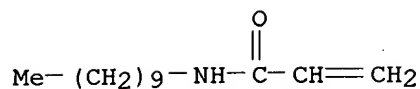
Absolute stereochemistry.



CM 2

CRN 77237-89-9

CMF C13 H25 N O



RN 196714-43-9 HCAPLUS

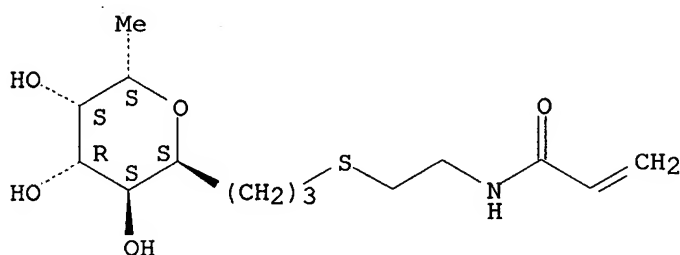
CN L-glycero-D-galacto-Nonitol, 2,6-anhydro-1,7,8-trideoxy-9-S-[2-[(1-oxo-2-propenyl)amino]ethyl]-9-thio-, polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 196714-28-0

CMF C14 H25 N O5 S

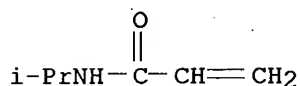
Absolute stereochemistry.



CM 2

CRN 2210-25-5

CMF C6 H11 N O



RN 196807-78-0 HCAPLUS

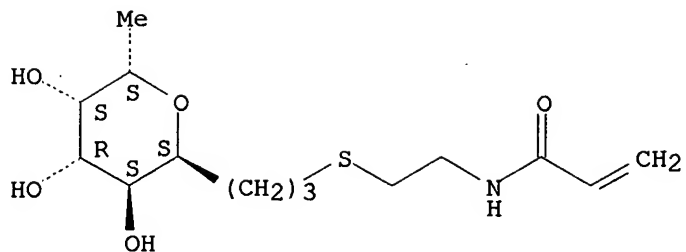
CN D-erythro-L-manno-Nononic acid, 5-(acetylamino)-2,6-anhydro-3,5-dideoxy-2-C-[3-[[2-[(1-oxo-2-propenyl)amino]ethyl]thio]propyl]-, polymer with 2,6-anhydro-1,7,8-trideoxy-9-S-[2-[(1-oxo-2-propenyl)amino]ethyl]-9-thio-L-glycero-D-galacto-nonitol (9CI) (CA INDEX NAME)

CM 1

CRN 196714-28-0

CMF C14 H25 N O5 S

Absolute stereochemistry.

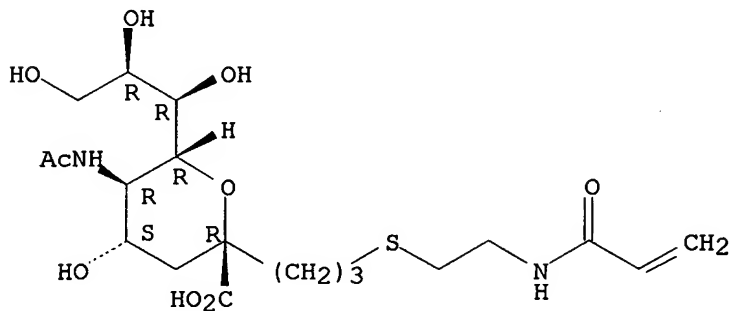


CM 2

CRN 146899-69-6

CMF C19 H32 N2 O9 S

Absolute stereochemistry.



RN 196807-80-4 HCAPLUS

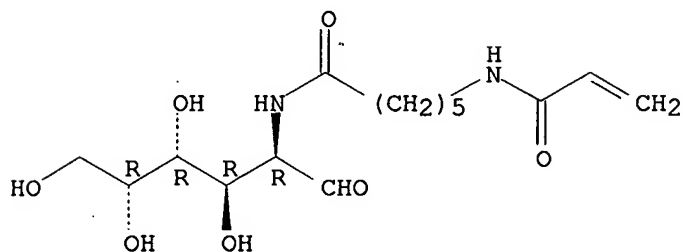
CN D-erythro-L-manno-Nononic acid, 5-(acetamino)-2,6-anhydro-3,5-dideoxy-2-C-[3-[[2-[(1-oxo-2-propenyl)amino]ethyl]thio]propyl]-, polymer with 2-deoxy-2-[[1-oxo-6-[(1-oxo-2-propenyl)amino]hexyl]amino]-D-galactose (9CI) (CA INDEX NAME)

CM 1

CRN 196807-79-1

CMF C15 H26 N2 O7

Absolute stereochemistry.

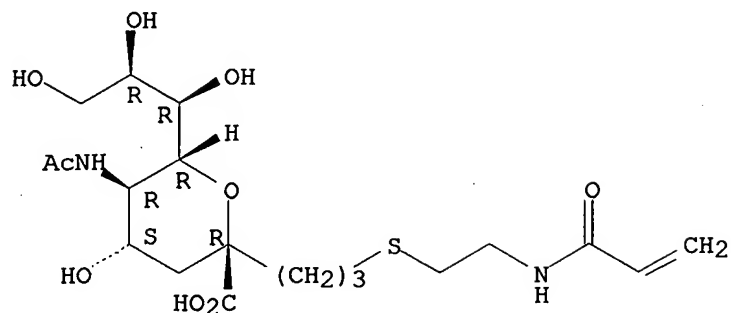


CM 2

CRN 146899-69-6

CMF C19 H32 N2 O9 S

Absolute stereochemistry.



RN 196807-85-9 HCAPLUS

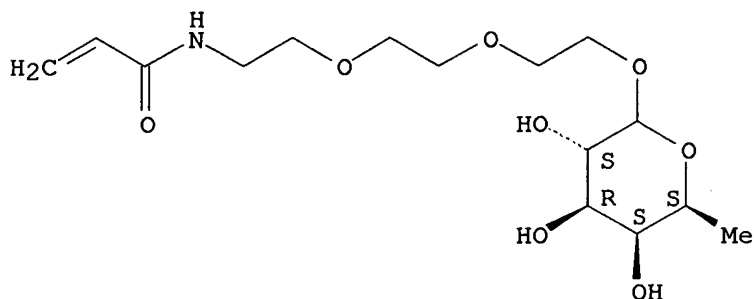
CN D-erythro-L-manno-Nononic acid, 5-(acetylamino)-2,6-anhydro-3,5-dideoxy-2-C-[3-[[2-[(1-oxo-2-propenyl)amino]ethyl]thio]propyl]-, polymer with N-[2-[2-[2-[(6-deoxy-L-galactopyranosyl)oxy]ethoxy]ethoxy]ethyl]-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 196714-13-3

CMF C15 H27 N O8

Absolute stereochemistry.

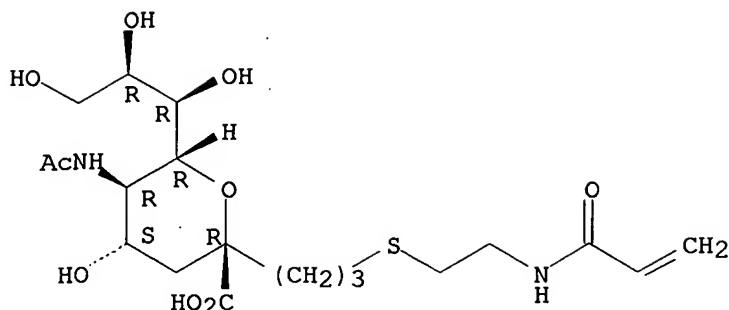


CM 2

CRN 146899-69-6

CMF C19 H32 N2 O9 S

Absolute stereochemistry.



L50 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:576989 HCAPLUS

DOCUMENT NUMBER: 127:177654

TITLE: Acrylic synthetic fibers with deodorizing and antibacterial effect and their manufacture

INVENTOR(S): Komiya, Ken; Nishino, Akio; Ono, Masahito; Wakayama, Zenji

PATENT ASSIGNEE(S): Kanebo, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09176917	A2	19970708	JP 1995-351970	19951226
JP 3338604	B2	20021028		

PRIORITY APPLN. INFO.: JP 1995-351970 19951226

AB Title fibers are manufd. by spinning a mixt. of (1) an acrylonitrile-based copolymer, (2) 1-20 wt.% of a polymer which is mixable but incompatible with the acrylonitrile polymer, and (3) 0.5-20 wt.% of fine powder of metal silicates or metal aluminosilicates with av. particle size 0.5-10 .mu.m. To a DMF soln. contg. 20-30% of acrylonitrile-Me acrylate-sodium 2-acrylamido-2-methylpropanesulfonate copolymer (91.2:8.0:0.8) were added a 20-30% DMF soln. of acetylcellulose and a 20-25% DMF dispersion contg. SiO₂, Al₂O₃, and ZnO in a molar ratio of 58:7:35 and having av. particle size 3.5 .mu.m to give a liq. with acetylcellulose content 15% and particle content 1%. The fibers produced from this material had deodorizing and antibacterial effect even after washing.

IT **70765-57-0P**, Acrylonitrile-methyl acrylate-sodium 2-acrylamido-2-methylpropanesulfonate copolymer
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (acrylic synthetic fibers with deodorizing and antibacterial effect and their manuf.)

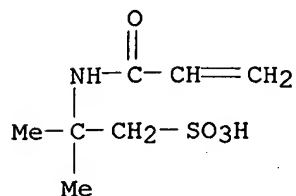
RN 70765-57-0 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

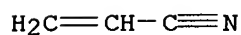


● Na

CM 2

CRN 107-13-1

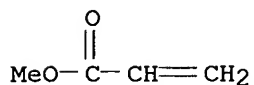
CMF C3 H3 N



CM 3

CRN 96-33-3

CMF C4 H6 O2



IT **58803-24-0P**, Acrylonitrile-sodium 2-acrylamido-2-methylpropanesulfonate-vinylidene chloride copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acrylic synthetic fibers with deodorizing and antibacterial effect and
 their manuf.)

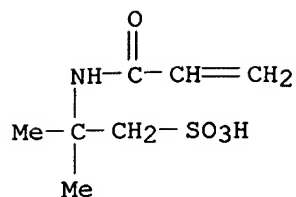
RN 58803-24-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monosodium
 salt, polymer with 1,1-dichloroethene and 2-propenenitrile (9CI) (CA
 INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

CRN 107-13-1

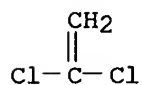
CMF C3 H3 N



CM 3

CRN 75-35-4

CMF C2 H2 Cl2



L50 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:302940 HCAPLUS

DOCUMENT NUMBER: 127:19403

TITLE: Odor-absorbing antibacterial acrylic fibers with good washfastness and their manufacture

INVENTOR(S): Komiya, Ken; Nishino, Akio; Ono, Masahito

PATENT ASSIGNEE(S): Kanebo, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09087924	A2	19970331	JP 1995-269368	19950922
PRIORITY APPLN. INFO.:			JP 1995-269368	19950922
AB The antibacterial fibers are prepd. by forming dispersions contg. 5-40% powders of silicic acid metal salts or aluminosilicic acid metal salts (A)				

with av. particle diam. 0.5-10 .mu.m in org. solvents, mixing acrylonitrile copolymers with the liqs., and spinning the liqs. to form fibers contg. 0.5-20.0% A particles. A liq. contg. 20% acrylonitrile-Me acrylate-sodium 2-acrylamido-2-methylpropanesulfonate copolymer and 1.0% aluminosilicic acid Zn salt with av. particle diam. 3.5 .mu.m was spun, drawn, washed, lubricated, and dried to give antibacterial fibers with trimethylamine and NH3 odor absorption 95 and 94%, resp., initially and 95 and 95%, resp., on washing the fibers (JIS L-1018).

IT **58803-24-0P**, Acrylonitrile-sodium 2-acrylamido-2-methylpropanesulfonate-vinylidene chloride copolymer **70765-57-0P**, Acrylonitrile-methyl acrylate-sodium 2-acrylamido-2-methylpropanesulfonate copolymer

RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (fiber; odor-absorbing antibacterial acrylic fibers contg. silicic acid metal salts or aluminosilicic acid metal salts with good washfastness and their manuf.)

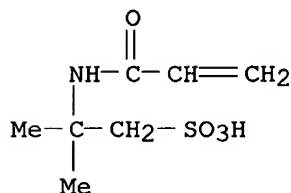
RN 58803-24-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with 1,1-dichloroethene and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

CRN 107-13-1

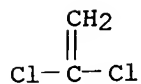
CMF C3 H3 N



CM 3

CRN 75-35-4

CMF C2 H2 Cl2



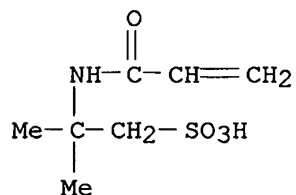
RN 70765-57-0 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

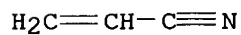


● Na

CM 2

CRN 107-13-1

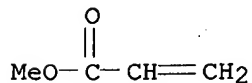
CMF C3 H3 N



CM 3

CRN 96-33-3

CMF C4 H6 O2



L50 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1997:293965 HCAPLUS

DOCUMENT NUMBER: 126:278883
 TITLE: Bactericidal acrylic fibers and their manufacture
 INVENTOR(S): Nishino, Akio; Komya, Masaru; Oono, Masahito
 PATENT ASSIGNEE(S): Kanebo Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09059820	A2	19970304	JP 1995-236033	19950821
PRIORITY APPLN. INFO.:			JP 1995-236033	19950821

AB Title fibers showing good light and laundering resistance are made of copolymers including .gtoreq.40% acrylonitrile (I) and 0.2-10.0% TiO₂ particles of av. particle size .ltoreq.0.1 .mu.m supporting bactericidal metals, which are manufd. by dispersing 2-50% the above TiO₂ particles in org. solvents, adding the dispersions into the above fiber org. solvent solns., and spinning in stable spinnability. Thus, Ti hydroxide gel cake was oxidized by aq. H₂O₂ then aq. Ag ammine complex and silica sol were successively added and heated at 150.degree. for 18 h to give Ag-supporting TiO₂ sol (av. particle size 0.07 .mu.m), 0.5% of which was added to 25.6% DMF soln. of 91:8:1 I-Me acrylate-Na 2-acrylamide-2-methylpropanesulfonate copolymer then the dispersion was spun into aq. DMF bath, washed by water, impregnated with an oil, squeezed, dried at 150.degree., mech. crimped, and crimped at 130.degree. at moist condition to give 3 denier-monofilament fiber showing retention of initial bactericidal effect after laundering.

IT **70765-57-0P 123045-96-5P**
 RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (fiber; acrylic fibers contg. titania-supported metal bactericides with light and laundering resistance)

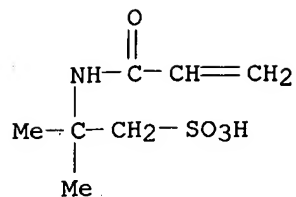
RN 70765-57-0 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

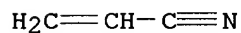


● Na

CM 2

CRN 107-13-1

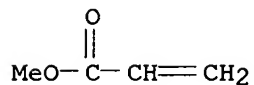
CMF C3 H3 N



CM 3

CRN 96-33-3

CMF C4 H6 O2



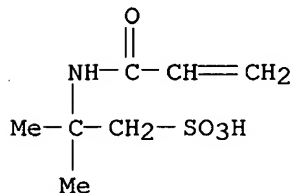
RN 123045-96-5 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with chloroethene and 2-propenenitrile (9CI) (CA INDEX NAME)

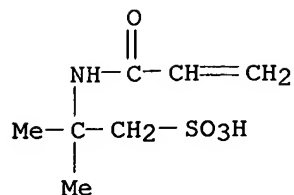
CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



Na

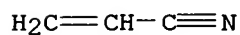


● Na

CM 2

CRN 107-13-1

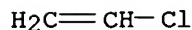
CMF C3 H3 N



CM 3

CRN 75-01-4

CMF C2 H3 Cl



L50 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:869883 HCAPLUS

DOCUMENT NUMBER: 123:343279

TITLE: Light-resistant bactericidal acrylic fibers

INVENTOR(S): Miura, Takeshi; Oono, Masahito

PATENT ASSIGNEE(S): Kanebo Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

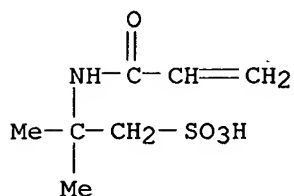
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07207525	A2	19950808	JP 1994-14791	19940112
PRIORITY APPLN. INFO.: JP 1994-14791			19940112	

AB Title fibers with improved whiteness contain 0.1-10.0% fine particles of AgxHyAzM2(PO4)3 (A = alkali metal; M = Zr, Ti, Sn; x, y, z <1; x + y + z = 1) and 0.01-2.0% benzotriazoles. Thus, 91.2:8.0:0.8 acrylonitrile-Me methacrylate-sodium 2-acryloamido-2-methylpropanesulfonate copolymer in DMF was mixed with 0.2% methylbenzotriazole and 20% Novaron (Ag content 3.0%), spun, and woven.

IT 125300-03-0P, Acrylonitrile-methyl methacrylate-sodium
 2-acrylamido-2-methylpropanesulfonate copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
 (Properties); PREP (Preparation); USES (Uses)
 (fiber; light-resistant and bactericidal acrylic fibers contg.
 benzotriazoles and **silver**-contg. phosphate particles)
 RN 125300-03-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium
 salt and 2-propenenitrile (9CI) (CA INDEX NAME)
 CM 1
 CRN 5165-97-9
 CMF C7 H13 N O4 S . Na

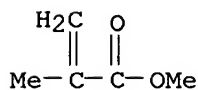


● Na

CM 2
 CRN 107-13-1
 CMF C3 H3 N



CM 3
 CRN 80-62-6
 CMF C5 H8 O2



L50 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:511379 HCAPLUS
 DOCUMENT NUMBER: 121:111379
 TITLE: Coloring prevention of spinning solution for

INVENTOR(S): antibacterial acrylic-based synthetic fibers
Nishino, Akio; Arai, Masashi; Watanabe, Masahiro;
Takano, Tomoka
PATENT ASSIGNEE(S): Kanebo Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05331704	A2	19931214	JP 1992-160443	19920526

PRIORITY APPLN. INFO.: JP 1992-160443 19920526

AB The fibers, with whiteness and light and washing resistance, are prepd. by spinning org. solvent solns. contg. acrylonitrile-based polymers, 0.002-1.0% SO₃H-contg. org. acid Zn salts, and 0.1-10.0% powd. Ag_xHyAzM₂(PO₄)₃ (A = alkali metal; M = Zr, Ti, Sn; x + y + z = 1; x, y, z <1). A polymer prepd. from acrylonitrile 91.2, Me acrylate 8.0, and 2-acrylamide-2-methylpropanesulfonic acid Na salt, 0.05% Zn p-toluenesulfonate, and 1.0% Novaron were mixed, spun, dried, and heated to obtain a fiber showing antibacterial activity, whiteness, light and washing resistance, and transmittance 67.8 and 89.1% at 420 and 550 nm, resp.

IT **70765-57-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(fibers, prepn. of, powd. **silver**-contg. phosphates and org. acid zinc salts for, antibacterial, spinning of, with light and washing resistance and whiteness)

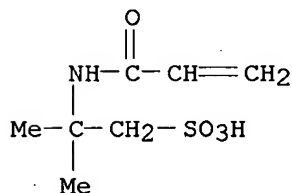
RN 70765-57-0 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

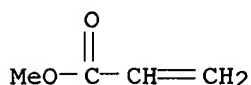
CM 2

CRN 107-13-1
CMF C3 H3 N



CM 3

CRN 96-33-3
CMF C4 H6 O2



L50 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:511378 HCAPLUS
DOCUMENT NUMBER: 121:111378
TITLE: Coloring prevention of spinning solutions for
antibacterial acrylic fibers spinning
INVENTOR(S): Nishino, Akio; Arai, Masashi; Watanabe, Masahiro;
Takano, Tomoka
PATENT ASSIGNEE(S): Kanebo Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05331703	A2	19931214	JP 1992-160442	19920526
PRIORITY APPLN. INFO.:			JP 1992-160442	19920526

AB The fibers, with whiteness and light and washing resistance, are prepd. by spinning org. solvent solns. contg. acrylonitrile-based polymers, 0.002-1.0% strong acids, and 0.1-10.0% powd. Ag_xHyAzM₂(PO₄)₃ (A = alkali metal; M = Zr, Ti, Sn,; x + y + z = 1; x, y, z <1). A polymer prepd. from acrylonitrile 91.2, Me acrylate 8.0, and 2-acrylamide-2-methylpropanesulfonic acid sodium salt 0.8, 0.05% p-toluenesulfonic acid, and 1.0% Novaron were mixed, spun, dried, and heated to obtain a fiber showing antibacterial activity, whiteness, light and washing resistance, and transmittance 65.4 and 88.5% at 420 and 550 nm, resp.

IT **70765-57-0P**

RL: IMF (Industrial manufacture); PREP (Preparation)
(fibers, prepn. of, powd. ~~silver~~-contg. phosphates for,
antibacterial, spinning of, with light and washing resistance and
whiteness)

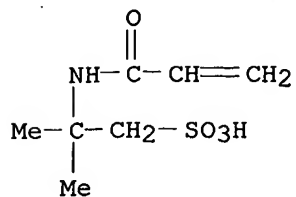
RN 70765-57-0 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

CRN 107-13-1

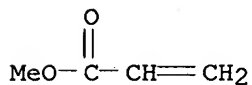
CMF C3 H3 N



CM 3

CRN 96-33-3

CMF C4 H6 O2



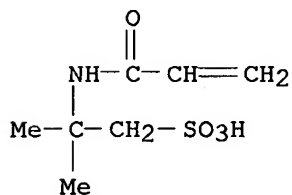
L50 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:136982 HCAPLUS
 DOCUMENT NUMBER: 120:136982
 TITLE: Microbicidal acrylic fibers
 INVENTOR(S): Arai, Masashi; Oono, Masahito
 PATENT ASSIGNEE(S): Kanebo Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 JP 05272008 A2 19931019 JP 1992-93397 19920318
 PRIORITY APPLN. INFO.: JP 1992-93397 19920318
 AB The title fibers with good washfastness and light resistance are composed of (A) acrylonitrile copolymers and (B) polymers miscible but not compatible with A and contg. 0.1-10.0% AgxHyAzM2(PO4)3 (A = alkali metal; M = Zr, Ti, Sn; x, y, z <1; x + y + z = 1; Ag content 1-7%) fine powders with av. diam. 0.1-2.5 .mu.m, where A and B form a sep. phase. Thus, dispersing 0.5% Novalan (bactericide, av. diam. 0.5 .mu.m, Ag content 3.0%) in a DMF soln. of acetyl cellulose, and addn. of a DMF soln. of acrylonitrile-Me acrylate-Na 2-acrylamido-2-methylpropanesulfonate copolymer, spinning the resulting soln., and drawing gave fibers contg. 0.45% Novalan. A fabric of the fibers showed lightfastness rating 4.5 and bacteria redn. 94% for Escherichia coli and >99.2% for Klebsiella pneumoniae.
 IT **70765-57-0**, Acrylonitrile-methyl acrylate-sodium 2-acrylamido-2-methylpropanesulfonate copolymer
 RL: USES (Uses)
 (fiber, biconstituent with cellulose fibers, contg. **silver** phosphates, microbicidal, with good lightfastness)
 RN 70765-57-0 HCAPLUS
 CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

 CM 1

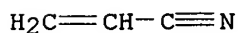
 CRN 5165-97-9
 CMF C7 H13 N O4 S . Na



● Na

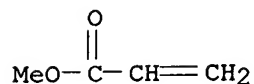
CM 2

 CRN 107-13-1
 CMF C3 H3 N



CM 3

CRN 96-33-3
CMF C4 H6 O2



IT 58803-24-0

RL: USES (Uses)

(fiber, biconstituent with vinyl butyral fibers, contg. **silver** phosphates, microbicial, with good lightfastness)

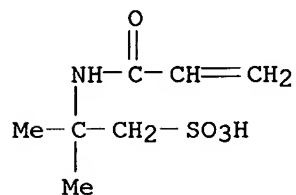
RN 58803-24-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with 1,1-dichloroethene and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

CRN 107-13-1

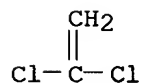
CMF C3 H3 N

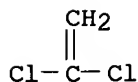


CM 3

CRN 75-35-4

CMF C2 H2 Cl2





L50 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:136981 HCAPLUS

DOCUMENT NUMBER: 120:136981

TITLE: Microbicidal acrylic fibers and their manufacture

INVENTOR(S): Arai, Masashi; Oono, Masahito

PATENT ASSIGNEE(S): Kanebo Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05272007	A2	19931019	JP 1992-93398	19920318
PRIORITY APPLN. INFO.:			JP 1992-93398	19920318

AB The title fibers with good washfastness and light resistance contain 0.1-10.0% AgxHyAzM2(PO4)3 (I: A = alkali metal; M = Zr, Ti, Sn; x, y, z <1; x + y + z = 1; Ag content 1-7%) fine powders with av. diam. 0.1-2.5 .mu.m and are manufd. by dispersing 5-40% I in org. solvents contg. 0.1-2.0% surfactants, addn. of acrylonitrile copolymers to the solns., and wet spinning the solns. Thus, dispersing 20% Novalan (bactericide, av. diam. 0.5 .mu.m, Ag content 3.0%) in a DMF soln. contg. 1.0% polycarboxylate salt, addn. of a DMF soln. of acrylonitrile-Me acrylate-Na 2-acrylamido-2-methylpropanesulfonate copolymer, spinning the resulting soln., and drawing gave fibers contg. 1.0% Novalan. A woven fabric of the fibers showed lightfastness rating 4.5 and bacteria redn. 94% for Escherichia coli and >99.2% for Klebsiella pneumoniae.

IT **58803-24-0 70765-57-0**, Acrylonitrile-methyl acrylate-sodium 2-acrylamido-2-methylpropanesulfonate copolymer

RL: USES (Uses)
(fiber, contg. **silver** phosphates, microbicidal, with good lightfastness)

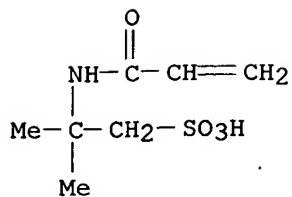
RN 58803-24-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with 1,1-dichloroethene and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

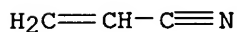


● Na

CM 2

CRN 107-13-1

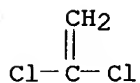
CMF C3 H3 N



CM 3

CRN 75-35-4

CMF C2 H2 Cl2



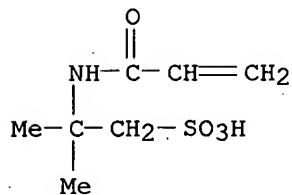
RN 70765-57-0 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

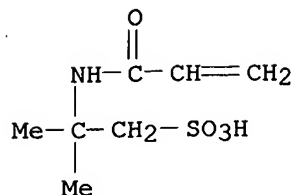
CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



Na



● Na

CM 2

CRN 107-13-1

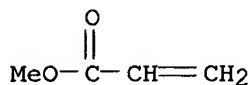
CMF C3 H3 N



CM 3

CRN 96-33-3

CMF C4 H6 O2



L50 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1990:574010 HCAPLUS

DOCUMENT NUMBER: 113:174010

TITLE: Antibacterial acrylic fibers and their manufacture

INVENTOR(S): Nakayama, Yasuaki; Yamamoto, Toshihiro

PATENT ASSIGNEE(S): Kanebo, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02160914	A2	19900620	JP 1988-314169	19881212
PRIORITY APPLN. INFO.:			JP 1988-314169	19881212

AB The title fibers with good washfastness are prepd. by wet spinning dispersions contg. acrylic polymers and zeolites contg. antibacterial metal ions and crystd. H₂O. Thus, a liq. contg. 20% zeolite Z1 contg. Ag 3.5, Cu 2.0, and H₂O 29.3%, and 2% acrylonitrile-Me acrylate-sodium

methallylsulfonate copolymer was wet spun to give antibacterial fibers with bacteria redn. 99.1% and 89.1% (after 30 washings), vs. 18.2% for fibers contg. zeolite Z3 (contg. no Ag and Cu) instead of zeolite Z1.

IT 70765-57-0P, Acrylonitrile-methyl acrylate-sodium
2-(acrylamido)-2-methylpropanesulfonate copolymer

RL: PREP (Preparation)

(fiber, contg. zeolites, antibacterial, manuf. of)

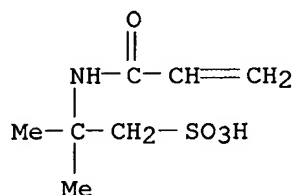
RN 70765-57-0 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

CRN 107-13-1

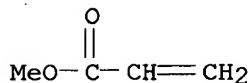
CMF C3 H3 N



CM 3

CRN 96-33-3

CMF C4 H6 O2



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L15 3774 SEA FILE=HCAPLUS ABB=ON PLU=ON CONTACT LENSES+OLD,NT/CT
 L16 178775 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIMICROBIAL AGENTS+NT/CT
 L17 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L16 AND SILVER

=> d ibib ab hitind 117 1-14

L17 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2003:117674 HCAPLUS
 DOCUMENT NUMBER: 138:175927
 TITLE: Antimicrobial contact lenses comprising
 polysiloxane-polyacrylate
 INVENTOR(S): Turner, David C.
 PATENT ASSIGNEE(S): Johnson & Johnson Vision Care, Inc., USA
 SOURCE: PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003011351	A2	20030213	WO 2001-US50580	20011221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003043341	A1	20030306	US 2001-29526	20011221
PRIORITY APPLN. INFO.: US 2001-309642P P 20010802				
AB This invention relates to antimicrobial lenses contg. coated zeolites and methods for their prodn. Siloxane-acrylate contact lenses contg. zeolites were prepd. and release rate of silver from the lenses was measured.				
IC ICM A61L012-08				
ICS A61L027-28; G02C007-04				
CC 63-7 (Pharmaceuticals)				
Section cross-reference(s): 38				
IT Antimicrobial agents				
Contact lenses				
Oxidizing agents				
(antimicrobial contact lenses comprising polysiloxane-polyacrylate)				
IT 14701-21-4, Silver ion, biological studies				
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
(antimicrobial contact lenses comprising polysiloxane-polyacrylate)				

L17 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:615453 HCAPLUS
 DOCUMENT NUMBER: 137:174996
 TITLE: Antimicrobial contact lenses containing activated

INVENTOR(S): **silver**
 Vanderlaan, Douglas G.; Meyers, Ann; Brown-Skrobot,
 Susan
 PATENT ASSIGNEE(S): Johnson & Johnson Vision Care, Inc., USA
 SOURCE: PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062402	A1	20020815	WO 2001-US50582	20011221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002197299	A1	20021226	US 2001-27740	20011220
PRIORITY APPLN. INFO.:			US 2000-257317P	P 20001221
AB	An optically clear antimicrobial lens contg. >0.01% activated silver is disclosed as well as methods for the prodn. and storage of the lens. A blend of 9.80 g HEMA, 0.08 g EGDMA, 0.04 g Darocur-1173, and nanosize activated powd. silver in 9.80 g glycerin-esterified with boric acid diluent was sonicated for 1 h. The resulting mixt. was charged to a mold subsequently exposed to UV light for 30 min in polystyrene to cure the polymer. After curing, the molds were opened, and the lenses were washed out into borate-buffered saline. The resulting lenses were soaked for 10 min in a 5.25% soln. sodium hypochlorite in water, then rinsed 5 times in 0.85% physiol. saline soln. The no. of viable Pseudomonas aeruginosa adhered to the lenses using the microbial assay described above was reduced by 99.8% compared to the untreated contact lens.			
IC	ICM A61L012-08			
	ICS A61L027-02; A61L027-14; A45C011-00; G02B001-04; G02C007-04			
CC	63-7 (Pharmaceuticals)			
ST	antimicrobial contact lens activated silver			
IT	Polysiloxanes, biological studies			
	RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			
	(Acquaafilcon A; antimicrobial contact lenses contg. activated silver)			
IT	Antibacterial agents			
	Contact lenses			
	Oxidizing agents			
	Storage			
	(antimicrobial contact lenses contg. activated silver)			
IT	Polysiloxanes, biological studies			
	RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			
	(polyether-, perfluoro; antimicrobial contact lenses contg. activated silver)			

IT Fluoropolymers, biological studies
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polyether-polysiloxane-; antimicrobial contact lenses contg. activated **silver**)

IT Polyethers, biological studies
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polysiloxane-, perfluoro; antimicrobial contact lenses contg. activated **silver**)

IT **Contact lenses**
 (soft; antimicrobial contact lenses contg. activated **silver**)

IT 7440-22-4, **silver**, biological studies 25053-81-0, Polymacon 61463-79-4, Etafilcon A 89558-90-7, Genfilcon A 131577-81-6, Lenefilcon A 158483-22-8, Balafilcon A
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antimicrobial contact lenses contg. activated **silver**)

IT 7553-56-2, Iodine, processes 7681-52-9, Sodium hypochlorite 7722-64-7 7722-84-1, Hydrogen peroxide, processes 7726-95-6, Bromine, processes 7738-94-5, Chromic acid (H₂CrO₄) 7782-50-5, Chlorine, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
 (antimicrobial contact lenses contg. activated **silver**)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:487426 HCAPLUS

DOCUMENT NUMBER: 137:68225

TITLE: Antimicrobial contact lenses comprising **silver** nitrate

INVENTOR(S): Zanini, Diana; Azaam, Alli; Ford, James D.; Steffen, Robert B.; Vanderlaan, Douglas G.; Petisce, James R.

PATENT ASSIGNEE(S): Johnson & Johnson Vision Care, Inc., USA

SOURCE: PCT Int. Appl., 129 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002049683	A2	20020627	WO 2001-US50817	20011221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003044447	A1	20030306	US 2001-28400	20011220
AU 2002039725	A5	20020701	AU 2002-39725	20011221
PRIORITY APPLN. INFO.:			US 2000-257030P	P 20001221

WO 2001-US50817 W 20011221

- AB This invention relates to antimicrobial lenses and methods for their prodn. where the lenses contain **silver** and a polymerizable monomer (Markush structures given). A polysiloxane polyacrylate contact lenses were prepd. and ws treated with 10% **silver** nitrate for 60 min., then washed and stored in saline solns. Antimicrobial properties and amt. of **silver** in the lenses was measured.
- IC ICM A61L012-08
ICS A61L027-00; A45C011-00; G02B001-04; G02C007-04
- CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 35, 38
- ST antimicrobial contact lense **silver** nitrate polysiloxane polyacrylate
- IT Polysiloxanes, biological studies
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acrylates; antimicrobial contact lenses comprising **silver** nitrate)
- IT **Antimicrobial agents**
Contact lenses
(antimicrobial contact lenses comprising **silver** nitrate)
- IT Polysiloxanes, biological studies
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antimicrobial contact lenses comprising **silver** nitrate)
- IT Polysiloxanes, biological studies
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyether-, perfluoro; antimicrobial contact lenses comprising **silver** nitrate)
- IT Fluoropolymers, biological studies
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyether-polysiloxane-; antimicrobial contact lenses comprising **silver** nitrate)
- IT Polyethers, biological studies
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polysiloxane-, perfluoro; antimicrobial contact lenses comprising **silver** nitrate)
- IT Hydrogels
(silicone; antimicrobial contact lenses comprising **silver** nitrate)
- IT 7761-88-8, **Silver** nitrate, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(antimicrobial contact lenses comprising **silver** nitrate)
- IT 61463-79-4P, Etafilcon a 131577-81-6P, Lenefilcon a 158483-22-8P, Balafilcon a 313702-40-8P 439122-67-5P 439122-69-7P 439122-70-0P 439122-71-1P 439122-72-2P 439122-74-4P 439122-76-6P 439127-33-0P
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(antimicrobial contact lenses comprising **silver** nitrate)

L17 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:563980 HCAPLUS

DOCUMENT NUMBER: 135:127272

TITLE: Container with antimicrobial sheet for preserving contact lenses

INVENTOR(S): Fukusaki, Hironobu; Kaneko, Maki; Idekawa, Hironori; Hirose, Hiroshi

PATENT ASSIGNEE(S): Taki Chemical Co., Ltd., Japan; Seed Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001209015	A2	20010803	JP 2000-14758	20000124

PRIORITY APPLN. INFO.: JP 2000-14758 20000124

AB A contact lens container with a sheet of hydrophilic org. polymer that releases antimicrobial agent such as **silver** ion continuously at a specific rate for a long period is presented. The org. polymers are poly(vinyl alc.) complexes with acrylic acid polymers or chitosan.

IC ICM G02C013-00

ICS A01N025-34; C08L005-08; C08L029-04; C08L033-02; C08J005-00

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 5, 38

ST contact lens container antimicrobial **silver** ion polymer

IT **Antimicrobial agents**

Contact lenses

(container with antimicrobial **silver** ion and polymeric sheet for preserving contact lenses)

IT Containers

(with antimicrobial **silver** ion and polymeric sheet for preserving contact lenses)

IT 14701-21-4, **Silver** ion, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process);

USES (Uses)

(container with antimicrobial **silver** ion and polymeric sheet for preserving contact lenses)

L17 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:456835 HCAPLUS

DOCUMENT NUMBER: 133:75079

TITLE: Antimicrobial contact lens case

INVENTOR(S): Barry, John E.; Trogolo, Jeffrey A.; Holley, Steven A.

PATENT ASSIGNEE(S): Healthshield Technologies LLC, USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000038552	A1	20000706	WO 1999-US31027	19991223
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

US 1998-224628 A 19981231

AB The present invention relates to an antimicrobial contact lens case and an ophthalmic soln. container that are comprised of an antimicrobial polymeric resin and have antimicrobial surfaces, but which do not contaminate the lens or soln. with antimicrobial agent. The present invention provides a novel antimicrobial contact lens container which is adapted to hold one or more contact lenses and ophthalmic soln. The contact lens container is made from a polymeric material contg. zeolite which has ion-exchanged thereon **silver** ions in an amt. from about 0.1 to 5 wt.% of the zeolite and ammonium ions in an amt. from about 0.5 to 15 wt.% of the zeolite. The zeolite is present in an amt. from about 0.5 to 5 wt. % of the polymeric material. The contact lens container of the invention does not leach ions from the polymeric material into the ophthalmic soln. in a substantially antimicrobial amt.

IC ICM A45C011-00

ICS C08K009-02

CC 38-3 (Plastics Fabrication and Uses)

ST antimicrobial contact lens case; **silver** exchanged zeolite antimicrobial containerIT **Antimicrobial agents****Contact lenses**

Containers

(antimicrobial contact lens case)

IT Zeolites (synthetic), uses

RL: MOA (Modifier or additive use); USES (Uses)

(**silver**-exchanged, antimicrobial; antimicrobial contact lens case)IT 7440-22-4, **Silver**, uses

RL: MOA (Modifier or additive use); USES (Uses)

(antimicrobial contact lens case)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:365604 HCAPLUS

DOCUMENT NUMBER: 131:63520

TITLE: Disinfectant solutions containing **silver** microbicides for water-containing soft contact lenses

INVENTOR(S): Shiota, Ryoichi; Kado, Tomoyuki

PATENT ASSIGNEE(S): Sun Contact Lens Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 11151288	A2	19990608	JP 1997-336401	19971119
PRIORITY APPLN. INFO.:				JP 1997-336401	19971119
AB	The disinfectant solns. contain disinfectants, cyclodextrins, .gtoreq.0.1 ppm Ag microbicides, and .gtoreq.1 buffer substances selected from citric acid, phosphoric acid, its salts, and boric acid and show pH 5-8. The disinfectants are not adsorbed on the contact lenses and show long-lasting microbicidal and antiseptic effects. Hydroxypropyl-.beta.-cyclodextrin, NaCl, EDTA.2Na, and chlorhexidine gluconate were dissolved in a buffer (pH 7.0) contg. citric acid, boric acid, and Na3PO4 and the soln. was mixed with protein-Ag complex (8 ppm) to give a disinfectant soln. The soln. inhibited growth of Escherichia coli, Staphylococcus aureus, and Aspergillus niger.				
IC	ICM A61L002-18				
	ICS C11D007-02; C11D007-26; C11D007-32; C11D007-36; G02C013-00				
CC	63-8 (Pharmaceuticals)				
ST	soft contact lens disinfectant soln silver ; cyclodextrin disinfectant silver microbicide contact lens sterilization; chlorhexidine cyclodextrin silver protein contact lens disinfection				
IT	Antibacterial agents Antimicrobial agents Disinfectants Fungicides (disinfectant solns. contg. disinfectants, cyclodextrins, Ag microbicides, and buffer substances for water-contg. soft contact lenses)				
IT	Proteins, specific or class RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (silver -contg.; disinfectant solns. contg. disinfectants, cyclodextrins, Ag microbicides, and buffer substances for water-contg. soft contact lenses)				
IT	Contact lenses (soft; disinfectant solns. contg. disinfectants, cyclodextrins, Ag microbicides, and buffer substances for water-contg. soft contact lenses)				

L17 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:587377 HCAPLUS

DOCUMENT NUMBER: 121:187377

TITLE: Treating of contact lenses with compositions comprising PVP-hydrogen peroxide

INVENTOR(S): Salpekar, Anil M.

PATENT ASSIGNEE(S): Bausch and Lomb Inc., USA

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9415648	A1	19940721	WO 1993-US12553	19931221
W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5364601	A	19941115	US 1992-998507	19921230
AU 9458746	A1	19940815	AU 1994-58746	19931221
CN 1090129	A	19940803	CN 1993-121729	19931230
PRIORITY APPLN. INFO.:			US 1992-998507	19921230
			WO 1993-US12553	19931221
AB	In a compn. and method for disinfecting and cleaning contact lenses, the lenses are contacted with a compn. including a solid PVP-H2O2 complex and a solid neutralizing component for neutralizing residual H2O2. The compn. may also include a preserved saline soln. in which the compn. components are contacted with the lenses substantially simultaneously. The neutralizer component may be a metal catalyst, a salt, or an enzyme. The effect of the neutralizer component may be delayed until after disinfecting is complete, e.g. by encasement in a gelatin capsule. Thus, a powd. PVP-H2O2 complex contg. 18-22 wt.% H2O2, dissolved in isotonic saline soln. to provide a soln. contg. 2 or 3 wt.% H2O2, was highly effective against Serratia marcescens, Candida albicans, and Aspergillus fumigatus and provided effective protein removal from contact lenses. Addn. of a gelatin capsule contg. catalase, NaCl, and lactose caused delayed inactivation of the H2O2.			
IC	ICM A61L002-16			
CC	63-8 (Pharmaceuticals)			
IT	Bactericides, Disinfectants, and Antiseptics (hydrogen peroxide-PVP complex, for contact lenses)			
IT	Lenses (contact , cleaner and disinfectant for, hydrogen peroxide-PVP complex as)			
IT	7439-88-5, Iridium, uses 7439-89-6, Iron, uses 7439-96-5, Manganese, uses 7439-98-7, Molybdenum, uses 7440-04-2, Osmium, uses 7440-05-3, Palladium, uses 7440-06-4, Platinum, uses 7440-15-5, Rhenium, uses 7440-16-6, Rhodium, uses 7440-22-4, Silver , uses 7440-29-1, Thorium, uses 7440-33-7, Tungsten, uses 7440-45-1, Cerium, uses 7440-47-3, Chromium, uses 7440-48-4, Cobalt, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses			
	RL: CAT (Catalyst use); USES (Uses) (catalyst, for hydrogen peroxide decompn., in contact lens cleaning and disinfection)			
L17 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2003 ACS				
ACCESSION NUMBER:		1994:491960 HCAPLUS		
DOCUMENT NUMBER:		121:91960		
TITLE:		Method for improving antibacterial properties of ophthalmic solutions		
INVENTOR(S):		Raheja, Manohar K.; Wrobel, Stanley J.		
PATENT ASSIGNEE(S):		Polymer Technology Corp., USA		
SOURCE:		U.S., 6 pp. CODEN: USXXAM		
DOCUMENT TYPE:		Patent		
LANGUAGE:		English		
FAMILY ACC. NUM. COUNT:		1		
PATENT INFORMATION:				

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 5320843	A	19940614	US 1992-988649	19921210
PRIORITY APPLN. INFO.:				US 1992-988649	19921210
AB	Antibacterial efficacy of an ophthalmic soln., particularly a soln. for the care of contact lenses, is improved by providing an article molded from a plastic resin including an inorg. carrier retaining antibacterial metal ions (Ag, Cu, Zn), and placing the ophthalmic soln. in contact with the plastic resin. Antibacterial efficacy was demonstrated for contact lens cases molded from a zeolite contg. 3.5% Ag ions and 6.5% Zn ions blended into low-d. polyethylene.				
IC	ICM A61K009-00				
	ICS A61K009-66				
NCL	424405000				
CC	63-8 (Pharmaceuticals)				
IT	Bactericides, Disinfectants, and Antiseptics (metal ions as, from inorg. carrier blended with plastic resin in contact lens cases)				
IT	Lenses (contact , cases, plastic for, antibacterial activity of metal ions from inorg. carriers blended with)				
IT	7440-22-4, Silver , biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (antibacterial activity of, from inorg. carrier blended with plastic resin in contact lens cases)				

L17 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:173541 HCAPLUS
 DOCUMENT NUMBER: 120:173541
 TITLE: Preparation of contact lense holder having bactericidal activity
 INVENTOR(S): Iwadare, Yasuhiko; Ushama, Yoichi
 PATENT ASSIGNEE(S): Seiko Epson Corp, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 05341240	A2	19931224	JP 1992-149537	19920609
PRIORITY APPLN. INFO.:				JP 1992-149537	19920609
AB	Resins contg. ion exchangers carrying bactericidal metallic ions such as Ag, Cu, Au, or Zn are used for the prepn. of contact lens holders. The resins may further contain light-protecting agents such as .apprx.5% of Ti and Zn. Prepn. of Ag-substituted A-type zeolite and polyethylene beads contg. 1% of the zeolite for contact lens holder were shown.				
IC	ICM G02C013-00				
	ICS A61L002-16				
CC	63-7 (Pharmaceuticals)				
IT	Bactericides, Disinfectants, and Antiseptics (metallic, ion exchanger contg., in resins for contact lens holder)				

IT **Lenses**

(**contact**, bactericidal holder for, resins contg. ion exchanger substituted with metallic bactericides in)

IT 7440-22-4, **Silver**, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses 7440-66-6, Zinc, uses 7761-88-8, **Silver** nitrate, uses

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(bactericide, resins contg. zeolite substituted with, for contact lens holder)

L17 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:144220 HCAPLUS

DOCUMENT NUMBER: 120:144220

TITLE: Preparation of antimicrobial polymers for contact lenses and containers for them

INVENTOR(S): Ushama, Yoichi; Katagiri, Kanji; Myabayashi, Toshuki; Kojima, Tadao; Mogami, Takao

PATENT ASSIGNEE(S): Seiko Epson Corp, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05269181	A2	19931019	JP 1992-254891	19920924
PRIORITY APPLN. INFO.:			JP 1991-243643	19910924
			JP 1991-243644	19910924
			JP 1991-345345	19911226
			JP 1992-11856	19920127
			JP 1992-11857	19920127

AB Antimicrobial metal chelates are mixed with polymers or copolymer with monomers for manuf. of contact lenses and containers for them. For example, 2,2,3,3,4,4,4-heptafluorobutyl methacrylate-methyldi(trimethylsiloxy)silylpropyl methacrylate-ethylene glycol dimethacrylate-vinylbenzoyl acetonide zinc complex copolymer was prepd. and its antimicrobial activity was tested against Escherichia coli.

IC ICM A61L002-16

ICA G02C007-04

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 35

IT **Bactericides, Disinfectants, and Antiseptics**

(acetonide metal chelates as, in prepn. of polymer compns. for contact lenses)

IT **Lenses**

(**contact**, antimicrobial acrylic polymers for)

IT 9002-88-4, Polyethylene

RL: BIOL (Biological study)

(blends with Me methacrylate-vinylbenzoylacetonide **silver** complex copolymer, contact lens containers manuf. with)

L17 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1992:518559 HCAPLUS

DOCUMENT NUMBER: 117:118559

TITLE: A composition for disinfection and cleansing of contact lenses
 INVENTOR(S): Bayer, Thomas; Saccani, Renato
 PATENT ASSIGNEE(S): Zeiss, Carl, S.p.A., Italy
 SOURCE: Eur. Pat. Appl., 5 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 487994	A1	19920603	EP 1991-119506	19911115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
PRIORITY APPLN. INFO.:			IT 1990-22242	19901129
AB	Tablets for the disinfection and cleansing of contact lenses to be dissolved in an aq. vehicle contain O-releasing compds. (50-500 mg) and microencapsulated metal ions (5-800 .mu.g) for subsequent decompn. of O-releasing compds. Metal ions are released 2-4 h after tablet dissoln., a time necessary to accomplish the complete disinfection and cleansing of contact lenses. A tablet contained Na peroxybenzoate 50, AgOAc 0.1, NaOAc 10, citric acid 10, NaCl 70, PVP 20, cutin 1, and PEG 2 mg.			
IC	ICM A61L002-18 ICS G02C013-00			
CC	63-7 (Pharmaceuticals)			
IT	Bactericides, Disinfectants, and Antiseptics (peroxy compds. as, tablets contg., for contact lenses)			
IT	Lenses (contact , disinfection and cleansing of, tablets contg. peroxy compds. for)			
IT	563-63-3, Silver acetate 6147-53-1 7439-96-5, Manganese, biological studies 7440-22-4, Silver , biological studies 7440-47-3, Chromium, biological studies 7440-48-4, Cobalt, biological studies 7761-88-8, Silver nitrate, biological studies 7785-87-7, Manganese sulfate RL: BIOL (Biological study) (contact lens disinfecting tablets contg. peroxy compds. and)			

L17 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1992:476568 HCAPLUS
 DOCUMENT NUMBER: 117:76568
 TITLE: Cleansing compositions for contact lens
 INVENTOR(S): Mitsuyama, Hideo; Atsumi, Kiminori; Fujita, Keijiro; Ishizaki, Tsutomu
 PATENT ASSIGNEE(S): Sangi Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04138411	A2	19920512	JP 1990-258855	19900929
PRIORITY APPLN. INFO.:			JP 1990-258855	19900929

AB A cleansing compn. contains hydroxylapatite(I) and/or microbicidal I contg. Ag, Cu, Zn, and/or Pt, and an anionic (and/or nonionic) surfactant. A compn. consisted of I 10, alkyl sulfate salt 2, polyoxyethylene alkylphenyl ether 2, polyoxyethylene alkyl ether 1 and water to 100 % by wt.

IC ICM G02C013-00
ICS A61L002-18; C11D003-14; C11D017-00; C12S009-00

CC 63-7 (Pharmaceuticals)

IT **Bactericides, Disinfectants, and Antiseptics**
(metals as, hydroxylapatite contg., for cleansing compn. of contact lenses)

IT **Lenses**
(**contact**, cleansing soln. for, microbicidal hydroxylapatite in)

IT 7440-06-4, Platinum, biological studies 7440-22-4, **Silver**, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies
RL: BIOL (Biological study)
(hydroxylapatite contg., in cleansing compn. for contact lens)

L17 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:466403 HCAPLUS
DOCUMENT NUMBER: 117:66403
TITLE: A study of the bactericidal effect of ION STAR
AUTHOR(S): Kamikaidou, Noriaki; Oku, Daisuke; Kashiba, Shuzo
CORPORATE SOURCE: Dep. Bacteriol., Nara Med. Coll., Kashiwara, 634, Japan
SOURCE: Nippon Kontakuto Renzu Gakkai Kaishi (1991), 33(4), 287-91
CODEN: NSIZBD; ISSN: 0374-9851
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Many species of bacteria have been isolated from contact lens storage soln. This indicates the need for bacteriostatic or bactericidal activity in a storage soln. The authors examd. soln. antibacterial activity against Escherichia coli and the water-flora with the addn. of the antibacterial stick (Santec, ION STAR). The ion star anti-bacterial stick has strong bactericidal activity despite the low concn. (50 ppb) of Ag+ in the storage soln.

CC 10-5 (Microbial, Algal, and Fungal Biochemistry)

ST bactericide ION STAR **silver**

IT **Bactericides, Disinfectants, and Antiseptics**
(ION STAR antibacterial stick, bactericidal effect of, sterilization of contact lens in relation to)

IT **Lenses**
(**contact**, ION STAR antibacterial stick for sterilization of, with low **silver** concn.)

IT 7440-22-4, **Silver**, biological studies
RL: BIOL (Biological study)
(bactericidal effect of ION STAR antibacterial stick in low concn. of)

L17 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1972:4641 HCAPLUS
DOCUMENT NUMBER: 76:4641
TITLE: Apparatus for preserving hydrophilic gels, more particularly ocular contact lenses
INVENTOR(S): Chromecek, Richard; Vodnansky, Jiri; Manych, Jiri

PATENT ASSIGNEE(S): Ceskoslovenska Akademie Ved
 SOURCE: U.S., 2 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3591329	A	19710706	US 1968-712609	19680313
GB 1167285	A	19691015	GB 1968-1167285	19680307
FR 1566641	A	19690509	FR 1968-1566641	19680312
PRIORITY APPLN. INFO.:			CS 1967-1883	19670315

AB A protective system for preserving and storing swelled hydrophilic polymeric gels as well as articles made from them, i.e. ocular contact lenses, consisted of a space to receive the hydrogel, sepd. by a permeable wall from a space designed for cation exchanger on which Ag has been reduced. The simplest system used consisted of a little bag made of a porous textile fabric filled with a strongly acidic styrene-divinylbenzene cation exchanger which had been satd. with a soln. of AgNO₃ which was then reduced with H₂N:NH₂.H₂O. The bag was put into a container, with the hydrophilic gel being stored above it. The app. protected contact lenses from the growth of fungi.

IC A61L

NCL 021061000

CC 37 (Plastics Fabrication and Uses)

IT **Lenses**
 (contact, fungicides for, from cation exchangers contg. silver)

IT Cation exchangers
 (fungicides, contg. silver, for contact lenses)

IT Colloids
 (gels, fungicides for polymeric, from cation exchangers contg. silver)

IT **Fungicides and Fungistats**
 (silver-contg. cation exchangers, for contact lenses)